CHNOLOGY DEPARTMENT

NEW EQUIPMENT DIGEST

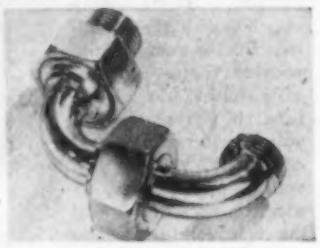
A PENTON PUBLICATION

EQUIPMENT • IMPROVEMENTS • PROCESSES • MATERIALS • METHODS • APPLICATIONS • ~~LITERATURE~~

Vol. 13 May, 1948 No. 5

PUBLIC LIBRARY
MAY 15 1948
DETROIT

SANITARY SWIVEL JOINT



Providing full 360-degree rotation in one and two planes, this stainless steel swivel joint is designed to meet sanitary requirements in milk, ice cream, bottling and other processing plants. Threads and elbows meet specifications of Dairy Industry Committee Code on Sanitary Fittings. Smooth nonporous surface is attained through fusion welding of elbow pieces to end connections and swivel members. Packing ring is fabricated of white synthetic material and is bonded to inner ring of stainless steel which enables this unit to retain its shape after repeated sterilizing operations. Packing seat is hard-chrome plated. Joints have pressure capacity of 100 pounds per square inch and also will operate under vacuum or suction. Six styles and 1, 1½ and 2-inch sizes are available. Made by **Chiksan Co.**, Brea, Calif.

▲ Mention Item **NED-3200** when writing ▲

HEAVY-DUTY FOOT SWITCH

Heavy-duty self-contained adjustable-stroke foot switch is enclosed in cast case and is gasketed for oil-tight applications. It is compact and 'hugs' floor to prevent tipping so that wide pedal can be operated from any of three directions. Snap-action contacts are rated 600 volts pilot duty on alternating or direct current and are available as single-pole double-throw; double-pole double-throw; and two-stage, with each stage, single-pole double-throw. Switch is available with interchangeable covers, one with guard to protect pedal against accidental operation and other with plain cover for applications not involving hazard to operator. Made by **Square D Co.**, Industrial Controller Div., 4041 N. Richards St., Milwaukee 12, Wis.

▲ Mention Item **NED-3201** when writing ▲

Do YOU Know

■ SLIPPERY finish imparted to insulation of Laytex electrical wire by wax coating makes wire slide through conduit and around sharp bends with one-half to one-third the amount of pulling formerly required. This development is expected to speed and simplify installation of wire. Developed by United States Rubber Co., 1207 Rockefeller Center, New York 20, N. Y.

▲ Mention Item **NED-3202** when writing ▲

■ AMOUNTS to be withheld from wages and salaries under provisions of the new Income Tax law are quickly determined through use of the 1948 Delbridge Simplified Withholding Tax chart. Deductions are tabulated for all earnings and for various numbers of dependents. List price is $3.50 each for weekly, bi-weekly, semimonthly or monthly payroll charts. Issued by Delbridge Calculating Systems, Inc., 2502 Sutton Ave., St. Louis 17, Mo.

▲ Mention Item **NED-3203** when writing ▲

In This Issue

EDITORIAL CONTENTS—

New Equipment ..... Pages 1-53, 72
New Processing and Materials ..... Pages 54-58
New Literature and Catalogs .... Pages 59-67, 71

INDEXES—

Advertisers' Index ..... Pages 68-69
Product Index ..... Pages 70-71

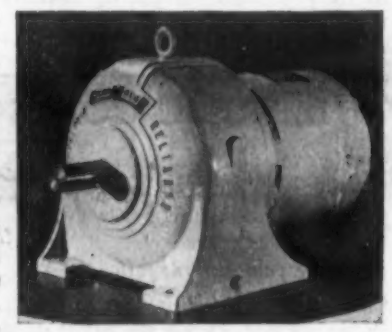
BENCH TYPE IMPACT HAMMER

Suited for light stamping, forging, trimming, molding, crimping, coining, riveting, piercing, staking and forming operations, this bench type air-hydraulic impact hammer can be adjusted to deliver blow ranging from 1 ounce to 12,000 pounds when operating on 100-pound per square inch air line pressure. It will head up to ¼-inch mild steel rivets. Speed of hand or foot controlled operation is approximately 60 strokes per minute, and fully automatic operation can be achieved by addition of solenoid valve and guide rod switches. Stroke is constant, and impact pressure can be adjusted to meet job requirements. Impact pressure remains the same throughout stroke.

Housing and base are precision machined semisteel castings. Post is seamless steel tubing, and all moving parts subject to wear are hard-chrome plated. Air consumption is 1 cubic foot per 20 strokes. Power unit can be adjusted up or down 26-inch column to suit dimensions of work. Made by **Bryant Products Distributing Co., Dept.** NED, 297 W. Michigan Ave., Jackson, Mich.

▲ Mention Item **NED-3204** when writing ▲

MOTORIZED SPEED REDUCER



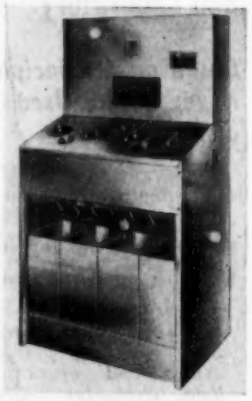
Built in six basic sizes or diameters capable of delivering from 1 to 60 horsepower, Reliance-Philadelphia GearMotoRs are furnished with integral alternating or direct current motors and operate in speed range of 7½ to 780 revolutions per minute. Flange-mounted motor, complete with bearings and bracket, has shaft modified to permit mounting of hardened pinion, and standard or special motor enclosure types can be used without expensive adaptations.

Single reduction types have gray iron cast housing bolted to Reliance motor which has feet and supports housing. Output shaft is located centrally above motor feet. In double and triple reduction models, feet are cast integral with gear housing. Triple reduction unit is assembled by adding single-stage reduction assembly bracket to two-stage GearMotoR. Ball bearings are used throughout, and gear unit is impervious to dust, dirt, moisture and fumes. Leakproof construction prevents oil from splash system reservoir from contacting motor windings.

Features include compactness, ease of servicing, load-balanced design, hardened gears cut from steel forgings and standardization of gears. Only 42 gears are used to supply all possible output speeds. Developed in co-operation with **Philadelphia Gear Works, Inc.**, 3600 G St., Philadelphia 34, Pa. by **Reliance Electric & Engineering Co.**, 1082 Ivanhoe Rd., Cleveland 10, O.

▲ Mention Item **NED-3205** when writing ▲

WATER PURIFYING UNIT



Purifying water by de-ionizing method, this UPFLO package unit demineralizer features maximum purity of effluent, low cost per gallon of water treated and simple regeneration. Water purification is effected by use of improved synthetic resins through which raw water flows upward. 'Backwashing' to regenerate unit is eliminated, and valve operations are reduced to minimum. Supplied as completely assembled unit, it is installed easily and requires only water connections and one electric connection to power indicator lamp which tells when unit requires regeneration. Made by **Barnstead Still & Sterilizer Co.**, 173 Lanesville Terrace, Forest Hills, Boston 31, Mass.

▲ Mention Item **NED-3206** when writing ▲

Read Carefully
CHECK AND PASS ON

✓	NAME AND TITLE	SEE ITEM NO.

DO YOU WANT ADDITIONAL INFORMATION?

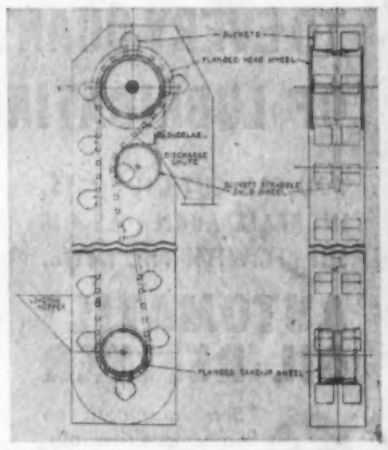
To simplify requesting additional data on advertised or editorially described products in this issue, postpaid self-mailing inquiry slips are enclosed between pages 4-5 and 68-69. Just tear out one slip; check or circle proper NED-Item numbers; and fold, seal and mail. No postage is required. Your inquiries will be handled promptly.

SMALL AIR VELOCITY METER

Portable, comparatively low-priced, direct-reading, miniature Alnor Velometer Jr. measures air velocities in unrestricted areas quickly and accurately. Designed for general industrial use in ceramic, brick, textile and other industries, unit does not require jet attachments. Calibrations provide for direct reading of air velocity in either feet per minute or miles per hour without timing, calculations or reference to tables and charts. Completely self-contained, unit is supplied in leather Nylon-stitched carrying case with brass fittings. Made by **Illinois Testing Laboratories, Inc.**, 430 N. LaSalle St., Chicago 10, Ill.

▲ Mention Item **NED-3207** when writing ▲

DUPLEX-BUCKET ELEVATOR



Chemicals and wide variety of bulk materials are handled speedily and efficiently with this Beaumont single-strand duplex-bucket elevator. Use of single strand of chain and double row of buckets affords high capacities when operating at either slow or fast speeds. Flanged pulley type head wheel and discharge arrangement prevent spillage from buckets when going over the head. Thus all material loaded into buckets is discharged into chute at elevator head.

Hot, light, fluffy, fine, coarse, abrasive, fragile or sticky materials are handled without maintaining any predetermined ratio between bucket speed, head wheel diameter, bucket size and spacing. Because unit does not require loading leg, only shallow pit is needed for installation. Capacities can be varied by changing bucket spacing and chain speed. Traction type drive minimizes wear on head wheel. Made by **Beaumont Birch Co.**, 1508 Race St., Philadelphia 2, Pa.

▲ Mention Item **NED-3208** when writing ▲

THE ORIGINAL PACKAGED FLOOR—

Plastic Rock

The Sun Never Sets on Plastic Rock Floors

Throughout the world's largest industries, institutions, and transportation facilities, millions of feet of Plastic Rock are positively proving its ability to stand abuse. Plastic Rock units come proportioned accurately and packed complete in handy barrels for easy application; new floor for old in 48 hours without expensive removal of old surface. Noiseless, flame-repellent, skid-safe even when wet, dustless; no cracking, curling, crumbling, or loosening. U. L. I. field associates are at your command to advise and supervise.

Ask for Report 220-D-5.

UNITED LABORATORIES, INC.
16804 Euclid Ave. Cleveland 12, Ohio

PRODUCTS AND PROCESSES for PROTECTING PROPERTY

Field Representatives All Over The World

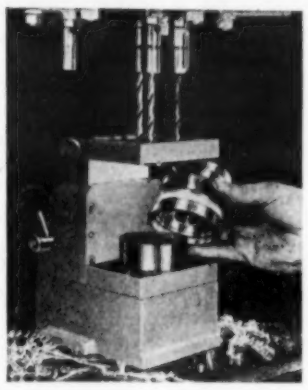
Mention Item NED-3209 when writing

PHOTOELECTRIC UNIT

Providing protecting, warning, announcing, counting, metering and indicating signals on chimes, bells, buzzers, counters, meters or motor controls, this Sentry electric 'eye' announcer unit is moderately priced. Composed of photoelectric 'eye', mirror and audible signaling device, unit features automatic compensation for changes in surrounding light and eliminates need for frequent adjustment. Object crossing light beam between 'eye' and mirror produces almost instantaneous electrical impulse that actuates signal device. Unit operates on 115-volt 60-cycle alternating current. Case is readily swiveled or turned to any desired position, and best operating distance between 'eye' and mirror is up to 25 feet. Photoelectric unit and mirror retail for $37.50. Made by **De-Tec-Tronic Laboratories, Inc.**, 1227 N. Clark St., Chicago 10, Ill.

Mention Item NED-3212 when writing

PNEUMATIC JIG VISE



Providing clamping pressure ten times that of air line pressure, this pneumatic double-action jig vise is particularly suitable for repetitive work which is to be drilled, filed, polished or assembled. Open front design facilitates and speeds insertion and removal of work from any of three sides. Double-acting air cylinder has 1-inch stroke and requires only one air line connection. 'On' and 'off' air control valve works through 45-degree arc. Flexibility of vise increases with addition of clamping and nesting plates obtainable in standard designs. Speed of stop and return of clamping plate is readily adjusted by set screws at back of vise. Made by **Deublin Co.**, Dept. C, Northbrook, Ill.

Mention Item NED-3213 when writing

HYDRAULIC CONTROL UNIT

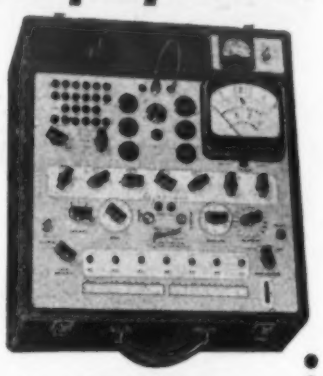
Compact in design, this Powerpak hydraulic control device consists of hand pump, reservoir, two selector valves, relief and check valves. It is capable of exerting precision controlled forces by finger-tip actuation from 0 to maximum operating pressure of 1500 pounds per square inch.

It stands 4½ inches high and base is 3½ x 4 inches. Reservoir capacity can be varied to meet individual requirements, and power driven pump can be utilized. Unit can be installed with curved or straight pump handle and selector valve levers projecting into open. Made by **Electrol, Inc.**, 500 Grand St., Kingston, N. Y.

Mention Item NED-3214 when writing

The TUBE TESTER for Electronic Equipment

Model 538



For industrial laboratory use, this Hickok Model 538 offers you everything desired in operating features. In structural design and craftsmanship it is of highest quality. This instrument also provides for testing probable future life of the tube. It has two signal voltages to test all tubes accurately. With its line voltage meter any operator can accurately read the line voltage at the same time the tube is being tested. A true dynamic mutual conductance tube tester for the industrial laboratory technician. Write for literature.

FIRST IN QUALITY FOR 35 YEARS

THE HICKOK ELECTRICAL INSTRUMENT CO.
10547 Dupont Avenue • Cleveland 8, Ohio

Mention Item NED-3216 when writing

BEST BUY BROWNING

BETTER SHEAVES FOR BETTER DRIVES

Browning

GRIPBELT SHEAVES with SPLIT-TAPER BUSHINGS

NEW LOWER LIST PRICES ON OVER 300 MOST POPULAR STOCK SIZES — WRITE FOR LIST PRICE SHEET V-149-E.

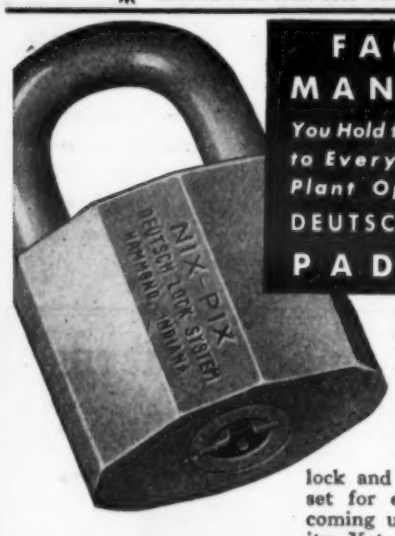
BROWNING MANUFACTURING COMPANY, INCORPORATED
MAYSVILLE, KENTUCKY

BEST BUY BROWNING

Mention Item NED-3217 when writing

FACTORY MANAGERS!

You Hold the "Master Key" to Every Phase of Your Plant Operations with DEUTSCH "NIX-PIX" PADLOCKS



★ You can stop losses of valuable materials, tools, oil, fuel, locker room and stockroom supplies by equipping each department with Deutsch "Nix-Pix" Padlocks. Individual lock and key combinations are set for each phase of supply coming under separate authority. Yet, *you* hold the "Master Key" to all departments.

Combinations Can Be Changed . . . FAST!

Your Deutsch "Nix-Pix" locks and keys come to you factory *pre-set* with combinations recorded. Provide a system custom-built for you that "keys" the responsibility for inventory shrinkage to delegated individuals. You can change any lock and key combination on a moment's notice by following simple instructions.

Write for Circular, Prices & Full Details NOW!

DEUTSCH LOCK COMPANY, INC.
5435 STATE LINE AVENUE
Telephone Sheffield 4660 HAMMOND, INDIANA

Mention Item NED-3210 when writing

AN IMPORTANT MESSAGE TO EVERY QUANTITY USER OF LUBRICATING OIL ! !

YOU CAN CUT OIL COSTS, INCREASE AVAILABLE OIL SUPPLY WITH THE NEW...

AUTOMATIC* OIL REFINER

**Semi-automatic on heavy additive oils.*

Here's your way to beat the new higher oil prices . . . and the possibility of oil shortages. Simple operation, easy maintenance, rugged construction and fool-proof design make the Automatic Oil Refiner ideal for industrial concerns, machine shops, truck, car or bus fleet operators, new or used car dealers, service stations, railroads, utilities or any other quantity user of lubricating oil.

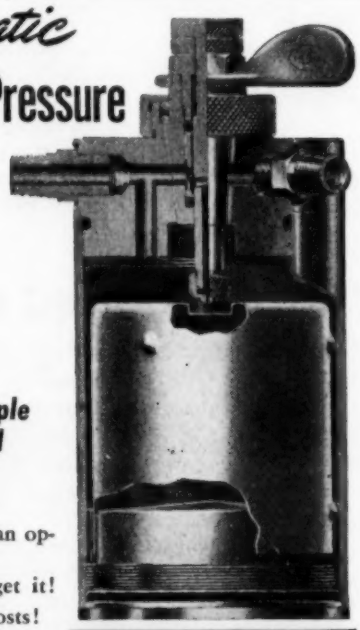
Write or Wire for Complete Information

A PRODUCT DEVELOPMENT BY
THE HOLDEN COMPANY
INCORPORATED
Buffalo 2, New York
MANUFACTURED BY MILL-BEN MACHINE CORP.

Mention Item NED-3211 when writing

Automatic

Vacuum and Pressure Control for Industry, Pilot Plant and Laboratory



Based on a Principle Never Before Used in Industry!

- So simple anyone can operate it!
- Just set it and forget it!
- Slashes operating costs!

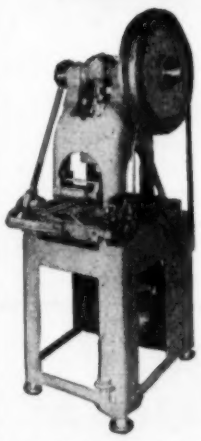
For complete information, including performance and operating data, write for Bulletin ICM-96.

CARTESIAN MANOSTAT
TRADE MARK
MODEL No. 5
(INDUSTRIAL)
PATENT PENDING

The EMIL GREINER Co.
161 SIXTH AVENUE NEW YORK 13, N. Y.

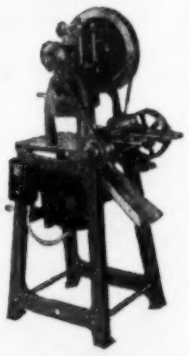
Mention Item NED-3215 when writing

DIEBEL HI-SPEED AUTOMATIC PRESSES



DEPENDABLE SERVICE
INCREASED PRODUCTION
EFFICIENT PERFORMANCE
BUILT-IN AUTOMATIC FEED
ECONOMICAL TO OPERATE
LOW INITIAL COST

12 TON PRESS EQUIPPED WITH SINGLE STROKE OPERATION CLUTCH 65-300 STROKES PER MINUTE



Diebel Hi-Speed Automatic Presses are available with a double system of feeding with a set of rollers front and rear . . . Diebel presses are employed with ferrous and non-ferrous metals, fiber, plastics, rubber, and paper.

Write for Complete Details

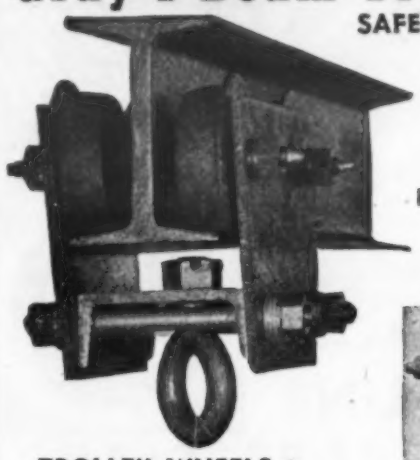
DI MACHINE CORP.
2701 Irving Park Road • Chicago 18, Illinois

5 TON PRESS 180-550 STROKES PER MINUTE

Mention Item NED-3218 when writing

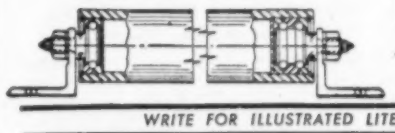
Gray I-Beam Trolleys

SAFE—EFFICIENT



Close Headroom
¼ to 5 ton Capacity
Adjustable For Any Type Beam
IMMEDIATE DELIVERY

TROLLEY WHEELS→
Plain or Flange Type
Single or Double Ball Race
Thoroughly Sealed



←GRAVITY ROLLERS
From 2¼" dia. up
Specify Length

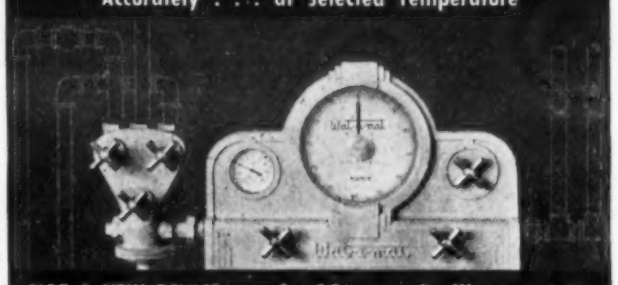
WRITE FOR ILLUSTRATED LITERATURE

GRAY HUB COMPANY
INCORPORATED 1922
17565 GABLE AVENUE DETROIT 12, MICH.

Mention Item NED-3219 when writing

HOW DO *You* MEASURE BATCH WATER AT SPECIFIED TEMPERATURE?

PFENING Wat-a-mat Measures Water Automatically . . . Accurately . . . at Selected Temperature



NOT A NEW DEVICE . . . for 19 years the Wat-a-mat has been the standard water measurer.

HIGH CAPACITY delivers 175 lbs. water per minute through 1" pipe at 40 lbs. line pressure
WIDE RANGE your choice of dials — 125 lb., 300 lb., 500 lb. or 1,000 lb.
TEMPERATURE CONTROL thermometer indicates mixed water temperature in degrees F.
MULTIPLE SERVICE can serve one or more outlets, depending on conditions
COMPACT only 27" wide x 18" high x 8" deep
READILY INSTALLED by any plumber, cuts in to regular water lines — no electrical connections

How can The Wat-a-mat serve in your plant? Tell us your set-up, your problem — we'll send complete information. Write The Fred D. Pfening Co., 1077 W. Fifth Ave., Columbus 8, Ohio.

Pfening
THE FRED D. PFENING COMPANY

Mention Item NED-3220 when writing

WAR SURPLUS BARGAINS!

NEW—UNUSED FIRE EXTINGUISHERS

Get Real Fire Protection At Low Cost

- UNDERWRITER APPROVED
- FILLED—READY TO USE. 3½ Gal. Capacity

These Carbon Tetrachloride extinguishers are ideal for plant, stock room or warehouse fire protection. Recommended for fighting flammable liquid (oil, grease, gasoline, paint, varnish, etc.) and electrical fires. Stored Pressure Type shoots long stream or fine spray with Variable Discharge nozzle. No maintenance—refill them yourself.

Present List approx. $200.00

OUR PRICE $45.00 ea.

F.O.B. Ill. Ordnance Depot, Marion, Illinois

Brand New Steel Refuse Cans

You'll find hundreds of uses for these steel cans in your plant, warehouse, etc. Waterproof and watertight; complete with tight fitting lid and drop handles. Light enough for easy handling, yet sturdily built to take abuse.

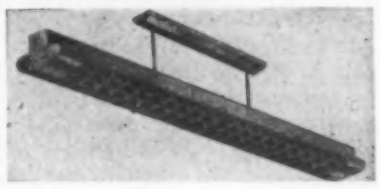
SPECIFICATIONS:
64 gallon capacity • 36" high
24" dia. at top • 20" dia. at bottom
PRICE—1 to 25 ..... $6.50 ea.
25 to 100 ..... 5.50 ea.
F.O.B. Ill. Ordnance Depot, Marion, Illinois
Special price for carload lots

Write for new catalog sheet of WAR SURPLUS BARGAINS

ACME EQUIPMENT CO., INC.
126-28 S. Clinton St. Chicago 6, Illinois

Mention Item NED-3221 when writing

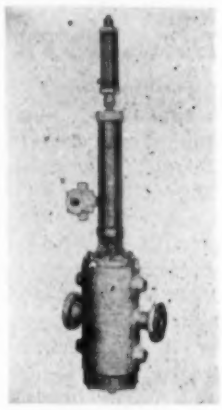
FLUORESCENT FIXTURE



Designed to use Colovolt cold cathode lamps, Generaliner fluorescent lighting fixtures are easily installed on any flat ceiling with minimum of electrical connections. Louvers are available which can be swung open quickly for relamping or removed instantly for cleaning. When fixtures are mounted as continuous lines of light, all wiring is contained inside units. Colovolt lamps have life expectancy of 10,000 hours, start instantly, do not flicker and provide even, glare-free light with true color discrimination. Fixtures made by **General Luminescent Corp.**, 728 S. Federal St., Chicago 5, Ill.

Mention Item NED-3222 when writing

STEAM JACKETED FLOW METER



Steam jacketed Flowrator instrument is designed to measure flow of molten solids and materials having high melting point such as sulphur, naphthalene and phosphorus. Remote totalization, recording and control of flow rate are available. Flow indication is provided also at primary element. Meter indicating extension is furnished with steam heating coils, and entire meter body is jacketed for 100-pound per square inch steam gage pressure to insure that material metered remains in liquid phase in all parts of instrument. Made by **Fischer & Porter Co.**, Dept. 1D-K, Hatboro, Pa.

Mention Item NED-3223 when writing

INDUSTRIAL GALVANOMETER

Featuring high sensivity and short period, type E galvanometer has its moving system, magnet, lamp, scale and lamp transformer embodied in compact case. It operates from any 115-volt, 50 or 60-cycle outlet. Available sensitivities are 0.5-microvolt and 0.005 and 0.0005-microampere per millimeter and period is about 3 seconds.

In addition to amply high sensitivity for potentiometer and bridge circuits, instrument has, in effect, added low sensitivity to aid in initial stages of measurement. If deflection 'shoots' galvanometer's indicating light-spot off scale, secondary spot shows direction of deflection and approximate magnitude of circuit balancing adjustments. Scale has fifty 1-millimeter divisions on either side of zero, and deflection is linear within 1 per cent. Equivalent of several instruments with different characteristics can be attained by using one galvanometer and additional readily interchangeable moving systems. All employ same magnet. Made by **Leeds & Northrup Co.**, 4934 Stenton Ave., Philadelphia 44, Pa.

Mention Item NED-3224 when writing

SANSTORM

modern SANDBLASTING MACHINES

Give You

1 Constant abrasive discharge, even with frequent on-off operation.
2 Non-stop, non-plug blasting action because the abrasive does not fall into the air blast, but is picked up by it.
3 Long-lifed, trouble-free operation for any type of hard or soft grit blast cleaning—thanks to simple, rugged modern construction.

Patent No. 2261565
Other Patents Pending

Manufactured by:
Sanstorm Manufacturing Co.
Fresno, California

FOR FULL DETAILS WRITE TODAY TO
Nelson Edwards
Kelco Sales & Engineering Co.
11150 Hawthorne Ave.
Inglewood, California

Mention Item NED-3225 when writing

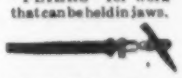
IDEAL "Thermo-Grip"

1000 WATT UNIT
ALL-PURPOSE SOLDERING SET

Power Unit and Carrying Case Combination.

ATTACHMENTS

"PLIERS" for work that can be held in jaws.



"PENCIL" for spot or seam soldering.

"FORK" for close space work.

Gives You ALL these Important Advantages

FAST... always ready to use—*instant heat;* no preparation or preheating.
EASY TO USE... Light weight—handy thumb switch for close heat control—one hand free to handle solder. Unit is easily portable.
BETTER WORK... No cold flow solder joints; complete adhesion of solder to parts.
IMPROVED QUALITY... No waste of materials—no damage to parts—no spoilage.
SAFER—CLEANER... No open flame—no fumes. Ask your Wholesaler for full information and Free Demonstration of the Ideal "Thermo-Grip"—IDEAL INDUSTRIES, Inc., Sycamore, Illinois.

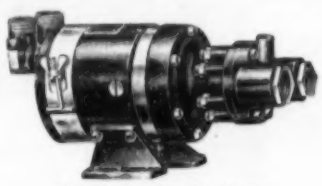
IDEAL

DISTRIBUTED THROUGH
AMERICA'S LEADING WHOLESALERS
Canadian Distributor: Irving Smith, Ltd., Montreal

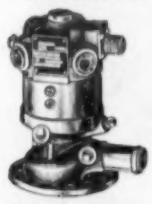
Mention Item NED-3226 when writing

PUMPS AT LOW PRICES

IMMEDIATE DELIVERY ON THESE USEFUL ITEMS



Bendix Hydraulic Pump



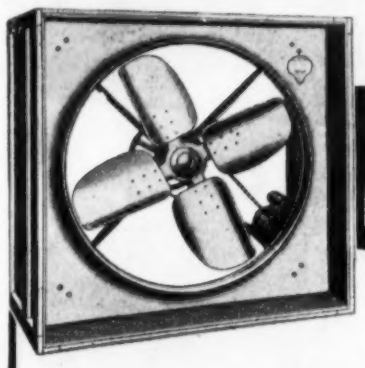
Booster Pump

BENDIX HYDRAULIC PUMP—Ideal for work about the plant or shop. *High capacity of 3½ gallons per minute at rated pressure of 600 psi.* Will work with water, oil or aromatic fuel. Empties a 50-gallon drum in about 14 minutes. *For 24—32V. DC or AC operation. Will run on 110 volts with suitable line cord resistance.* Lifts water about 20 feet. Can also be used on 12 volts DC or AC at 75% full capacity. *Bendix No. 389-2A Pump, brand new, in original cartons, each, FOB Chicago* $10.00

THOMPSON BOOSTER PUMP—Type TFD 8200 centrifugal, motor-driven pump of high quality and usefulness. *Will empty a 50-gallon drum of water, oil or aromatic fuel in approximately 20 minutes.* For 24-32V DC/AC operation, or 110V with line cord resistance. Lifts water 4 feet. *New in original cartons, Each, FOB Chicago* $17.50

SURPLUS ASSETS CORP.
DEPT. ND—2315 W. OGDEN AVE.—CHICAGO 8, ILL.

Mention Item NED-3227 when writing



increase production

Cool Your Plant with . . .

HUNTER BELT DRIVEN FANS

Famous for 62 years, Hunter fans specifically designed for industry have proven their superiority in effectively cooling all types of factory installations. Perfect balance in all parts, specially designed blades, one-piece steel frame and sound-tested bearings give quiet, effective cooling and trouble-free operation.

VERSATILE: Will Operate In Any Position
Can be mounted anywhere. Easy to install. Hunter fans will exhaust air up through roof or out through windows, or fans can be used as circulators.

WRITE FOR FREE FOLDER

HUNTER FAN & VENTILATING CO., Inc.
400 S. Front Street • Memphis, Tenn.

Mention Item NED-3228 when writing

WHEN YOU NEED STEEL CALL RYERSON

Contact Ryerson for prompt shipment of dependable steel products. Because of great demand, all sizes are not always in stock; but you will find that we can usually take care of your requirements.

PRINCIPAL PRODUCTS

Bars • Structurals • Plates • Sheets • Tubing • Allegheny Stainless • Alloy Steel • Safety Floor Plate • Babbitt • Solder Metal Working Tools & Machinery, etc.

JOSEPH T. RYERSON & SON, INC.

Plants: New York, Boston, Philadelphia, Detroit, Cincinnati, Cleveland, Pittsburgh, Buffalo, Chicago, Milwaukee, St. Louis, Los Angeles, San Francisco

Mention Item NED-3229 when writing

PUNCH PRESS

Incorporating improved features of Press-Rite presses, this 12-ton model No. 12 unit is equipped with antifriction roller bearings in flywheel, positive single-stroke clutch and cam actuated brake. Clutch utilizes single spring to engage clutch dog into clutch drive ring. Should spring fail, dog can not engage, thereby assuring maximum safety. Other improvements include larger die clearances, frame reinforcement, triple lubrication for ram ways and larger bearings throughout. Made by **Sales Service Machine Tool Co.**, 2426 University Ave., St. Paul 4, Minn.

Mention Item NED-3232 when writing

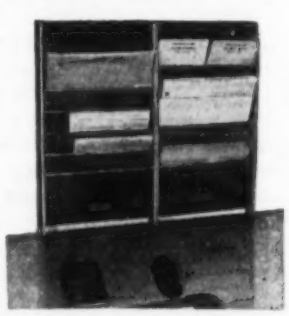
DIAL TYPE BORE GAGE

Designed for accurate measurement of small internal diameters, this lightweight, flexible, portable, quick-setting Nilco dial bore gage visually indicates size and condition of hole. It has graduations to 0.0001-inch with total travel of approximately 0.0008-inch, and three available models cover range from ⅜ to ⅞-inch. In setting gage, head is inserted into master gage, spring tensioned range extension is released and gage tilted. Locking sleeve is then tightened and range extension is set. Once set, gage is tamperproof so that it can be issued to inspector or machine operator. Made by **Nilsson Gage Co.**, P.O. Box 505, Poughkeepsie, N. Y.

Mention Item NED-3233 when writing

OPEN WALL TYPE FILE

Designed to hold job envelopes, production orders and similar items within easy reach of office managers, plant superintendents and others, this Utility wall file keeps each individual item in sight.



File pockets are 11-3/4 inches wide and 5-1/2 inches deep and have 3/4-inch capacity. Fabricated of 24-gage steel, files are finished with dark green lacquer. They are available in 40-inch heights having fifteen pockets or 24-inch heights having eight pockets. Files can be mounted on any wall convenient to user or placed on desk top to keep papers orderly and in place. Made by **Better Metal Products Co.**, 4496 W. 210th St., Cleveland 16, O.

Mention Item NED-3234 when writing

Safe Footing

Write for Booklet Inland Steel Co. 38 So. Dearborn St., Chicago 3, Ill.

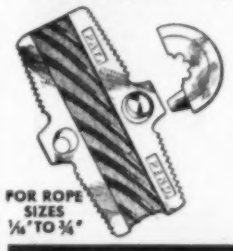
INLAND STOCKED BY LEADING STEEL WAREHOUSES

4-WAY FLOOR PLATE

Mention Item NED-3230 when writing

A BETTER METHOD OF HOLDING WIRE ROPE *Securely!*

SAFE-LINE WIRE ROPE CLAMP



FOR ROPE SIZES 1/16" TO 3/4"

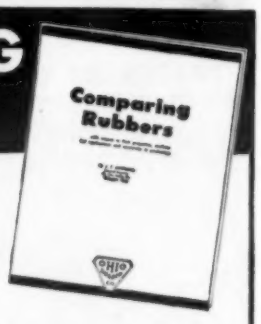
- *Eliminates Splicing and Serving*
- *Easy to Use, Easy to Re-adjust*
- *Outpulls Strongest Rope—Never Slips*
- *Economical—Use Again and Again*
- *Safe—Prevents Injury, Mental Hazards*
- *Replacement Guarantee Against Breakage*

WRITE FOR DESCRIPTIVE PRICE LIST FOLDER

NATIONAL PRODUCTION COMPANY
4557 ST. JEAN AVENUE • DETROIT 13, MICHIGAN

Mention Item NED-3236 when writing

COMPARING RUBBERS



A Special Report For Product Designers

• Although prepared primarily for product design and development engineers, the information in a new bulletin "COMPARING RUBBERS" should prove helpful to others interested in applications of mechanical rubber parts. Contents include comparisons of the physical properties, mechanical applications, and production economies of natural rubber, reclaim rubber, and various kinds of rubber-like materials. Examples of applications are illustrated. Information on the advantages of injection and transfer molding processes is included.

The author, J. F. McWhorter, research engineer, is a member of The Ohio Rubber Company's staff of specialized engineers in the field of mechanical rubber. The new bulletin "COMPARING RUBBERS" will be sent to you upon request on your company letterhead.

THE OHIO RUBBER COMPANY
587 BEN HUR AVE., WILLOUGHBY, OHIO

Mention Item NED-3237 when writing

Solved! THE SOFT-METAL MELTING PROBLEM WITH CHROMALOX *Electric* MELTING POTS

Melt solder, lead and other soft metals speedily and economically right where you need them with these efficient CHROMALOX Melting Pots. Accurate control; low radiation loss. Seven sizes to fit your needs—holding 3.5, 15, 27, 52, 113, 355 and 930 lbs. of solder.

Send for the booklet "100 WAYS TO APPLY Electric Heat"

It shows uses for Melting Pots and many other Chromalox Heating applications.

EDWIN L. WIEGAND CO., 7509 THOMAS BOULEVARD, PITTSBURGH 8, PA.

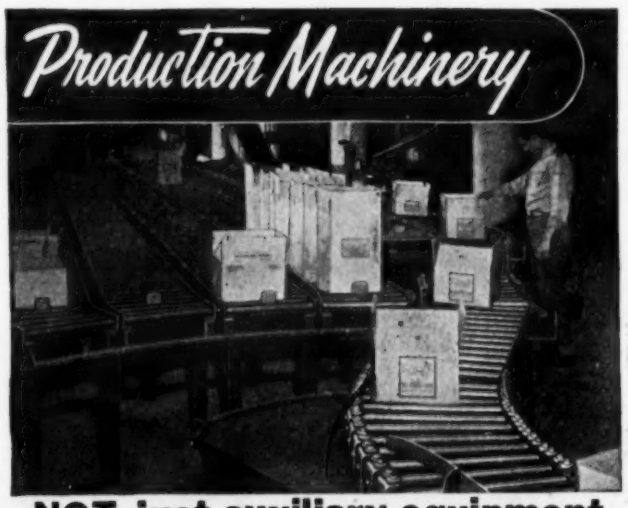
See other advertisement on page 61

CHROMALOX IB-69

ELECTRIC HEAT FOR MODERN INDUSTRY

Mention Item NED-3231 when writing

Production Machinery



NOT just auxiliary equipment

The world wide need of MORE PRODUCTION can be accomplished and at a definite decrease in costs. Well-planned Logan Conveyors *multiply* volume by delivering materials, at proper working heights, to operators and work stations, when needed. Thus production increases "all along the line." Another reason why Logan Conveyors are rightfully accepted as "production machinery." Write for literature.

SINCE Logan 1876

Logan Conveyors

LOGAN CO., INC., 215 CABEL ST., LOUISVILLE 6, KENTUCKY

Mention Item NED-3235 when writing

PROTECTION from THE WET! *with* TOWER'S *OILED or RUBBER GARMENTS*

The use of TOWER'S protective garments reduces to a minimum, loss of man-hours because of exposure to the wet, dampness, spraying or foul weather. All garments are scientifically designed to afford maximum working comfort and protection. Made in bright yellow, which in itself provides an important protective feature, there is a TOWER'S garment especially adaptable for every type of industrial activity.

For folder of styles and detailed information write Department ND.

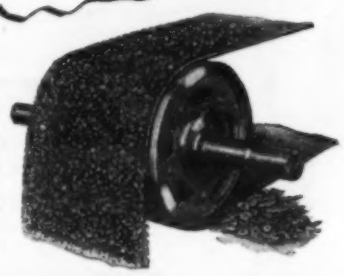
OILED RUBBER

TOWER'S FISH BRAND A. J. TOWER CO. TOWER'S ARROW BRAND
24 SIMMONS ST. BOSTON, MASS.

Mention Item NED-3238 when writing

For protection against tramp iron during processing, Homer offers the best in non-electric, plate-type permanent magnetic separators. Standard widths from 4" to 26". Special sizes upon request. Cast frame requires no insulation . . . cover protects powerful Alnico assembly from dust and moisture.

Homer
. . . PRODUCERS OF
Magnetic Separator Equipment
SINCE 1923. . .



Homer permanent, non-electric magnetic pulleys . . . "tops" for separating tramp iron from belt conveyed materials, available in 12" to 24" diameters, with widths to 60". Larger sizes upon request. Homers handle burden depths from 2½" to 8" depending on size and kind of material.

SUBMIT YOUR MAGNETIC SEPARATOR PROBLEMS TO HOMER

The HOMER Manufacturing Co., Inc.
Dept. 1-25
LIMA · · · OHIO
PERMANENT MAGNETIC SEPARATORS — PLATE TYPES AND PULLEYS

▲ Mention Item NED-3239 when writing ▲

it's in the groove...
...and out!

High speed machine-winding of electric motor armatures necessarily exposes magnet wire to some rugged treatment. The all-around (in the groove and out) "windability" of ESSEX EXTRA TEST MAGNET WIRE in this and other exacting applications cannot be excelled. Specify Essex Extra Test and be sure.

WIRE SX PRODUCTS

ESSEX WIRE CORP.
FORT WAYNE 6, INDIANA

Plants: Fort Wayne, Indiana; Detroit, Michigan; Anaheim, California. Warehouses* and Sales Offices: *Atlanta, Ga.; *Boston, Mass.; *Chicago, Ill.; Dallas, Texas; Dayton, Ohio; *Detroit, Mich.; Kansas City, Mo.; *Newark, N. J.; Philadelphia, Pa.; *St. Louis, Mo.; Cleveland, Ohio; Milwaukee, Wis.; San Francisco, Calif.; *Los Angeles, Calif.

▲ Mention Item NED-3240 when writing ▲

Cut Sweeping Costs
with
PARKER Floor Sweepers

• EFFICIENT • DUSTLESS
• VERY EASY TO OPERATE

The sweeper that will clean as fast as a man can walk. It has nothing to be dragged or does it pile up dirt that requires time-consuming pick-up. All the debris is brushed right into a removable, dust-proof hopper for easy disposal when the sweeping is finished. It tackles all kinds of floors and all types of materials. Write TODAY for complete details.

PARKER PATTERN & FOUNDRY CO.
220 BECHTLE ST. • SPRINGFIELD, OHIO
"PARKER"—The Original Name in Lawn Sweeping

▲ Mention Item NED-3241 when writing ▲

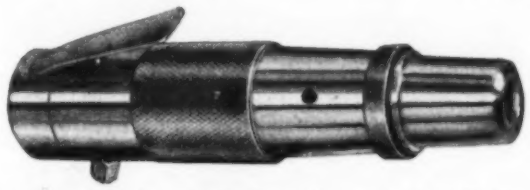
FLOOR WAXER

Handle of this floor waxer is translucent Tenite plastics tank and holds 1 gallon of liquid floor wax. Unit will wax 3200 square feet of flooring on single filling of wax. Wax flows from tank through water-tap type control valve and into sheepskin covered sweep. It can flow only when sweep is in contact with floor, and device will not drip, flood or clog. Sweep is 18 inches wide, and sheepskin pad is removable for cleaning. Top cap of handle-tank has wide mouth to facilitate filling. Handle is equipped with pistol grip to aid in guiding waxer. Unit weighs 3-1/2 pounds. Made by **American Specialty Co.**, 1000 Franklin Ave., Amherst, O.

▲ Mention Item NED-3242 when writing ▲

PNEUMATIC HAMMER

High speed and minimum vibration of this Elgin utility model G pneumatic hammer make it suitable for scaling and cleaning welds, weld peening, die work, chipping



operations, chiseling, metal cutting, ripping light gage metal, tuck pointing, general maintenance work and similar operations. Combination locking type tool holder operated by means of knurled ring keeps tools in position positively. Air control is by means of trigger. Tool is 8 inches long and it weighs 3-1/2 pounds. Approximate speed at 100-pound per square inch air pressure is 5000 strokes per minute. Made by **Borm Mfg. Co.**, Dept. A, Elgin, Ill.

▲ Mention Item NED-3243 when writing ▲

HEAT-SEALING DEVICE

Portable Speed-Wrap heat-sealing device is designed to seal hand-wrapped cellophane packages. Unit seals flats, rounds, tapers, rectangles, cylinders and many odd shaped packages ranging from 1/16 to 3-inches and over in thickness. Five hot sealing surfaces provide for handling of end seals, band seals, envelope wraps and special seals. Two independent rheostats afford steady flow of heat to all surfaces including removable adapters provided with each model to insure tight end seals on cartons and straight or tapered trays. Sealer operates on 110-125-volt alternating or direct current. Made by **Chas. F. Hubbs & Co.**, 389 Lafayette St., New York, N. Y.

▲ Mention Item NED-3244 when writing ▲

CUT MILLING COSTS with
KEMPSMITH STANDARD ATTACHMENTS

SWIVEL VISE
Can Be Used on ANY Milling Machine

Kempsmith Swivel Vises are precision tools with operating surfaces accurately ground to size and squareness. Jaws are removable and coolant return channel cast integral. Built to take hard, everyday punishment. Plain vises and heavy duty plain and swivel vises, also available. Ask for Bulletin No. 117.

Kempsmith Standard Attachments broaden the scope of your milling machine . . . lower capital investment . . . save in set-up time.

KEMPSMITH ARBORS in all popular sizes or types. Adaptable to ANY make of milling machine with standardized spindle.

KEMPSMITH MACHINE CO.
1841 SOUTH 71st STREET
MILWAUKEE 14, WIS., U.S.A.

KEMPSMITH
Precision Built Milling Machines Since 1888

▲ Mention Item NED-3245 when writing ▲

HOOKS, TONGS GRIPS and SLINGS

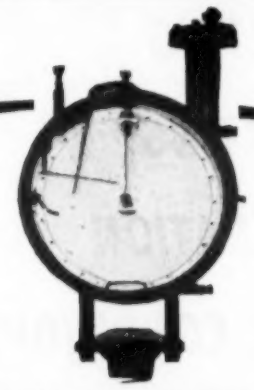
A COMPLETE LINE OF HOIST GRABS—for fast safe handling of *pipe, rails, drums, plate* and *structural steel, stone, timber, boxes* and *odd-shaped objects.* Carefully engineered Downs Hoist Grabs have a safety factor much greater than capacity ratings listed. Many types of hooks, tongs, grips and slings available for quick delivery.

WRITE FOR FREE ILLUSTRATED CATALOG #200

DOWNS CRANE & HOIST CO.
MECHANICAL ENGINEERS
540 W. VERNON AVENUE
LOS ANGELES 37, CALIF.

Electric Cranes • Hand Cranes • Jib Cranes • Sheaves • Sheave Blocks • Plate Grips • Plate Hooks • Crane Trolley Hoists • Crane Wheels • Crane End Truck Units • Jib Crane Fittings • Automatic Mechanical Load Brake Crane Hook Blocks

▲ Mention Item NED-3246 when writing ▲



How to save money with
FLOW METERS

Important improvements in operating efficiency may be realized by installing Foxboro's better-engineered Flow Recorders. In boiler rooms, these accurate meters record every variation in steam consumption . . . often uncover costly wastes. On processes, they show any fluctuation in flow that may be robbing efficiency.

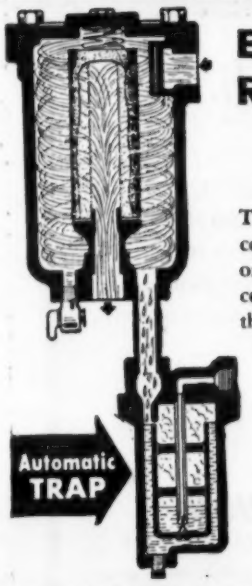
Foxboro Flow Recorders are designed with rugged construction and exclusive refinements that keep them accurate without maintenance.

Write for detailed Bulletin 351. The Foxboro Company, 134 Neponset Ave., Foxboro, Mass., U. S. A.

FOXBORO Reg. U.S. Pat. Off. FLOW RECORDERS

▲ Mention Item NED-3247 when writing ▲

Poro-Stone Filtration
FOR COMPRESSED AIR



EFFICIENTLY REMOVES
OIL, WATER
PIPE SCALE

The Adams *Poro-Stone* Filter gives continuous service without attention or maintenance expense. Efficient centrifugal separation *plus* diffusion through Poro-Stone, removes contamination completely without pressure loss. Automatic Trap eliminates attention and assures continuous and efficient filter operation. Write for complete data—Bulletin 105.

R. P. ADAMS CO., INC.
227 E. Park Drive • Buffalo 17, N. Y.

ADAMS Poro-Stone AIR FILTER

▲ Mention Item NED-3248 when writing ▲

FREE! THIS LITTLE BOOK MAY SAVE YOU BIG PRODUCTION MONEY!

- Tells how you can save from 10¢ to 20¢ a pound on high speed steels and get better results!
- Gives actual shop tests and comparisons!
- Practical data on heat treatment!
- Tells you how manufacturers are cutting production costs!

MOLYBDIC OXIDE—BRIQUETTED OR CANNED • FERROMOLYBDENUM • "CALCIUM MOLYBDATE"
CLIMAX FURNISHES AUTHORITATIVE ENGINEERING DATA ON MOLYBDENUM APPLICATIONS.

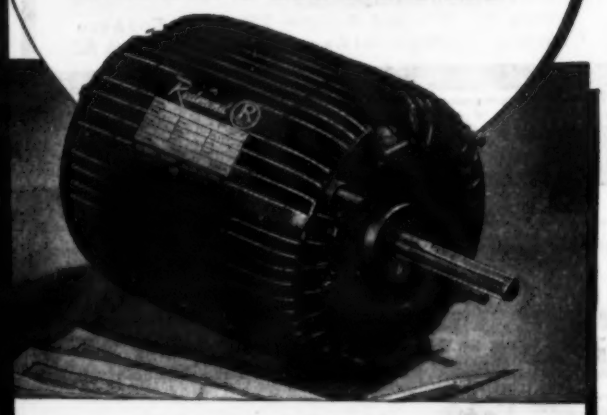
Climax Molybdenum Company
500 Fifth Avenue · New York City

▲ Mention Item NED-3257 when writing ▲

For HEATING
VENTILATING
REFRIGERATION
and AIR CONDITIONING

★ ★ ★ ★

Redmond
6 POLE AND 4 POLE
MICROMOTORS



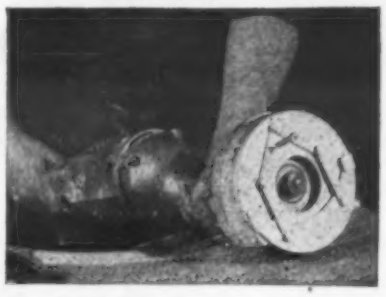
UP TO 1/15TH H.P.

- ★ 6-Pole Type "Y" at 1000 R.P.M.
- ★ 4-Pole Type "U" at 1500 R.P.M.
- ★ Open ventilated up to 1/15th H.P.
- ★ Totally enclosed up to 1/20th H.P.
- ★ Super-life recirculating lubrication
- ★ 2 square inches of bearing surfaces
- ★ Operates in any position
- ★ Non radio-interfering
- ★ Flush-weld precision skewed rotor

Redmond
COMPANY, INC.
MAIN OFFICES: Owosso, Michigan
EASTERN AREA SALES: 420 Lexington Ave., New York 17, N.Y.
PACIFIC COAST SALES: Redmond Company of Calif., Inc. 1248 South Boyle Avenue, Los Angeles 23, California

▲ Mention Item NED-3258 when writing ▲

AUTOMATIC RADIAL GUARD



Designed for use on all portable horizontal spindle tools, this Flohr automatic radial guard completely encloses wheel or tool and provides full protection to workers. Two Crescent type protecting shields which assure immediate displacement on coming into contact with material automatically return to normal position after tool is raised from work. Guard is mounted on portable tool housing with universal type split clamp and fastened with two bolts. Clamp is available in various lengths to fit all sizes of portable electric or pneumatic tools as well as flexible shaft tools. Made by **Flohr Safety Equipment, Inc.**, 2221 Elmwood Ave., Buffalo 17, N. Y.

▲ Mention Item NED-3259 when writing ▲

LIGHTWEIGHT KEG TRUCK

Designed to facilitate handling various sizes of kegs, barrels and other round wooden containers, this lightweight two-wheeled truck has latch type safety catch to engage lip or open end of container while two heavy steel spikes grip base. Truck is constructed of heavy tubular steel and is welded throughout. Choice of solid metal, rubber or pneumatic tires is available. Unit weighs 22 pounds with metal wheels and 15 pounds with rubber tires. Overall standing height is 45 inches. Made by **Palmer-Shile Co.**, 16015 Fullerton Ave., Detroit 27, Mich.

▲ Mention Item NED-3260 when writing ▲

FLOOD & SPOT LAMPS

Hermetically sealed, internal reflector, 75-watt model R-30 flood and spot lamps are available in standard ratings of 115, 120 and 125 volts. Lamps are extremely small, measuring 5-3/16 inches in length and 3¾ inches in diameter, and are especially suited for applications where limited space is available or where small, inconspicuous lighting units are desired. Made by **Westinghouse Electric Corp.**, Lamp Div., Bloomfield, N. J.

▲ Mention Item NED-3261 when writing ▲

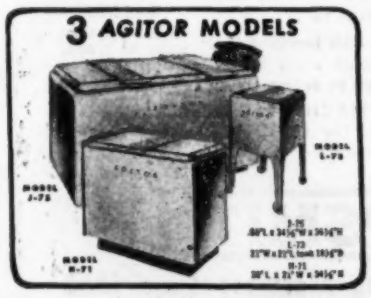
GRAY-MILLS
AGITOR
FOR SAFER EFFICIENT PARTS CLEANING

For the tool room, machine shop, maintenance department and customer service department.

4-WAY ACTION SAVES TIME AND LABOR —USES COLD SOLVENT

1. SWIRLING AGITATION—Flushing action of solvent cleans soaking parts.
2. FOUNTAIN SURGE AGITATING—Surging fountain cleans parts in "basket."
3. HI-VOLUME HOSE CLEANING—Direct the semi-flexible hose . . . cleans unattended.
4. AIR AGITATION—Solvent may be air agitated for faster cleaning action.

3 AGITOR MODELS



Send for AGITOR PARTS CLEANING SYSTEMS CATALOG

GRAY-MILLS CORPORATION
1971 Ridge Avenue
EVANSTON, ILLINOIS

▲ Mention Item NED-3262 when writing ▲

the handiest marking tool you've ever used!

Flo-master
FOUNTNBRUSH and INKS

WRITES ON ANY SURFACE!

No marking job is too tough for the *Flo-master*. Name your surface—cellophane, metal, foil, glass, wood, waxpaper—it writes on anything! Dries instantly. Won't rub off.

Carry the *Flo-master* in your pocket like a fountain pen. Won't leak—thanks to automatic valve control. *Flo-master* instant-drying Ink is available in black and seven brilliant colors. Interchangeable nibs make possible lines from 1/32" to 3/8" wide.

Ask your supplier about Flo-master FOUNTNBRUSH and INK sets today. They contain everything you need to make marking a cinch!

$3.50

CADO Cushman & Denison Mfg. Co. 135 West 23rd St. New York 11

▲ Mention Item NED-3263 when writing ▲

This A-F Belt Conveyor is only a small part of the A-F Completely Co-ordinated Conveying System installed in the plant of the nation's leading manufacturer of bathroom cabinets. The carefully engineered A-F System, combining the most practical conveyor methods, has greatly reduced handling and practically eliminated breakage. Results: smoother production, time and money saved, greater profits. There is a profitable A-F Conveyor way to handle *your* materials and products. Write, without obligation, for information-today!

THE ALVEY-FERGUSON COMPANY
34 Disney Street *Established 1901* Cincinnati 9, Ohio
Offices in Principal Cities—Coast to Coast

CONVEYING EQUIPMENT
Alvey-Ferguson
METAL PRODUCTS CLEANING EQUIPMENT

▲ Mention Item NED-3264 when writing ▲

Immediate Delivery!

UNITED STATES 10" GRINDERS
Floor Type Models

$99
F.O.B. Detroit
(Quantity Discounts)

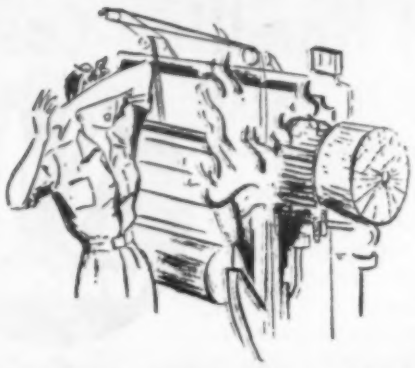
CHECK THESE IMPORTANT FEATURES:
1 H.P., Totally enclosed ball bearing MOTOR—1800 RPM—3 Phase 60 Cycle—220 Volts—10" Wheel—Double End Shaft Heavy Duty Safety Switch—Precision Level Tool Rests

For all-purpose grinding, wire brushing, buffing, polishing. Powerfully constructed . . . precision built. Height 44", Weight 205 lbs.

WRITE! WIRE! PHONE!

J. E. BERGER CORPORATION
Electric Power Equipment
4550 Maybery Grand Ave. Detroit 8, Michigan

▲ Mention Item NED-3265 when writing ▲



FIRE RISK CAN BE AVOIDED
USE
NON-INFLAMMABLE CLEANERS

Now you can replace gasoline, kerosene, naphtha and other risky solvents with Penetone Senior—the liquid that's non-inflammable, non-fuming, and easy on the skin.

Modern industrial plants use Senior to clean factory floors, machines, and tools, and to degrease small parts in tank cleaning. It's easy to rinse and is safe on any surface. Send for Field Service Reports on Plant Maintenance and Direct Contact Degreasing.

THE PENETONE COMPANY
BOX ND 5 **TENAFLY, N. J.**

▲ Mention Item NED-3266 when writing ▲

NEWS FOR DESIGNERS!

Don't hesitate to specify long-lasting, corrosion-resisting fastenings of STAINLESS STEEL for ANY product! Anti-Corrosive's stock room carries more than 100 items, more than 7,000 sizes, ready to ship in all standard analyses. What's more, Anti-Corrosive's stockpile of raw material can fit your specifications in any analysis, any size.

Nuts, screws, bolts, nails, rivets, cotter pins, staples . . . for any size, for any purpose . . . do a better job for any product when they're made from Stainless Steel. Anti-Corrosive has been a pioneer in the Stainless fastening field since 1927 . . . and, today, is the nation's only firm producing Stainless Steel fastenings EXCLUSIVELY!

Write for free literature. Address Anti-Corrosive Metal Products Co., Inc., Castleton-on-Hudson, N. Y. In Canada, Railway and Power Engineering Corp., Ltd.

ANTI-CORROSIVE METAL PRODUCTS CO., INC.
63 RIVER ROAD, CASTLETON-ON-HUDSON, N. Y.

▲ Mention Item NED-3267 when writing ▲

WET PICK-UP

DRY PICK-UP

BLOWER ACTION

HEAVY DUTY SUCTION

with HOLT Industrial Vacuum

Cleans rugs, carpets, upholstery, interior furnishings, floors—thoroughly, rapidly, economically. High power suction for heavy duty maintenance work. All attachments for wet or dry pick-up included at no extra cost. Check these features!

- ✓ ...Quiet operation
- ✓ ...Easy portability
- ✓ ...High vacuum (50" water lift)
- ✓ ...15 gal. capacity rust-proof tank

ALL ATTACHMENTS INCLUDED!

WRITE TODAY FOR CATALOG No. 113

HOLT MANUFACTURING CO., 651 20TH ST., OAKLAND 12, CAL.

HOLT MANUFACTURING CO. Oakland, Calif. Newark, N. J.

▲ Mention Item NED-3268 when writing ▲

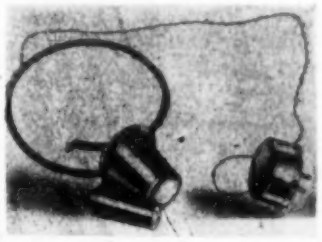
VARIABLE SPEED POWER UNIT

Compact, portable, lightweight, 1½-horsepower gasoline engine powered Multi-Tool variable speed power drive provides output at any speed from 1600 to 2600 revolutions per minute. Desired speed is instantly obtainable by adjusting control dial on housing. Range can be widened further in both directions by use of accessory equipment. Power is delivered either directly from main shaft or through automatic transmission which is part of optional equipment.

Mounted on utility base, power unit can be located on floor or ground and used for drilling, boring, sanding, grinding, buffing and polishing or for operating shears, cement mixers, conveyors, lathes, saws, presses, etc. Made by **Continental Motors Corp.**, Room 620-D, Ford Bldg., Detroit 26, Mich.

▲ Mention Item NED-3269 when writing ▲

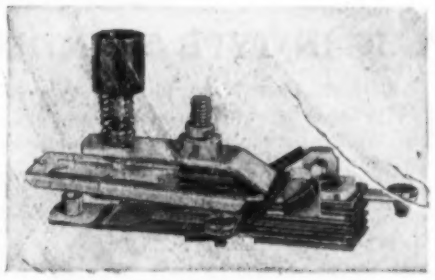
ILLUMINATING LOUPE



Having directed light beam combined with ground 2-inch focal length lens, L & R Electric-Loupe provides tool and die makers, engravers, inspectors, photographers, watchmakers and others with means of viewing small objects clearly. Device has lightweight flexible cord that plugs into any convenient 110-volt current outlet, and built-in transformer reduces voltage to operate 7½-volt bulb. Loupe is fitted with plastics covered head band. List price is $8.95. Made by **L & R Mfg. Co.**, Dept NE, 577 Elm St., Arlington, N. J.

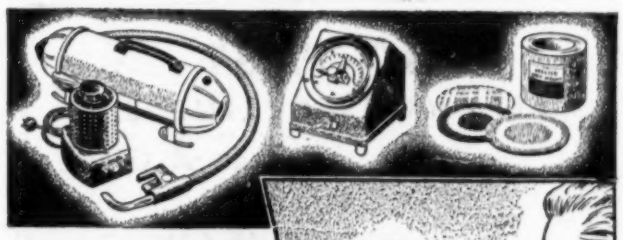
▲ Mention Item NED-3270 when writing ▲

THERMAL TIMER



Activated by heater element which is wound on bimetallic strip, this standard model, normally closed, heavy duty, manually reset, thermal timer can be set for any desired time delay before it breaks contact. When heater element is energized, contacts open and will not close until Bakelite pushbutton is reset. Mica and ceramic insulation, corrosion-resistant metals, cadmium-plated structural parts and brass rivets are used in fabrication. Recommended timing range is from 20 seconds to 3 minutes, rating is 15 watts on 115-230-volt alternating current, and suggested applications include use on standby power plants, process controls, etc. Made by **George Ulanet Co.**, 414 Market St., Newark 5, N. J.

▲ Mention Item NED-3271 when writing ▲



Expedite your **TABER ABRASER WEAR TESTS**

3 new, improved ACCESSORIES Now Available

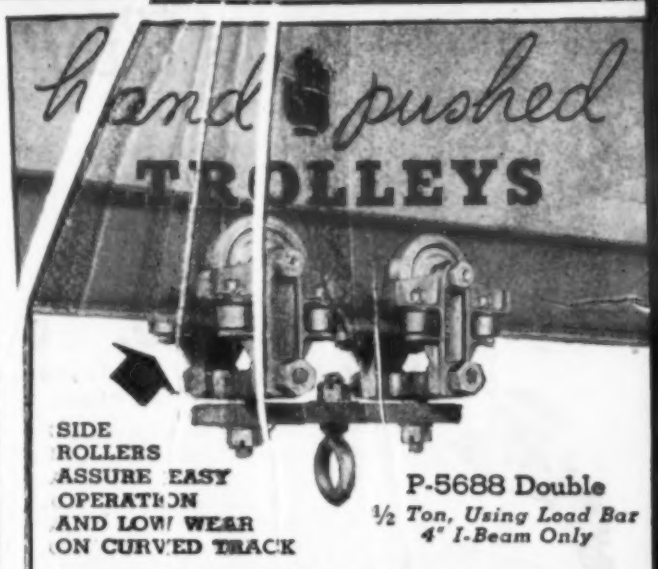
● Manual describing how to test wear resistance of all types of surfaces as well as new 12-page Accessory Bulletin giving complete description and use of all accessories, on request.

Send for your copy today!

TABER INSTRUMENT CORP.
110 GOUNDRY ST. NORTH TONAWANDA, N. Y.

The Taber Test *Proves* What Wears Best!

▲ Mention Item NED-3272 when writing ▲



SIDE ROLLERS ASSURE EASY OPERATION AND LOW WEAR ON CURVED TRACK

P-5688 Double
½ Ton, Using Load Bar 4" I-Beam Only

Webb *Hand Pushed Trolleys* are versatile, simple, economical, effective. Drop-forged, hardened wheels assure long wear; ball bearings and side-guide rollers make them very easy to push. Write for *Hand Pushed Trolley* Bulletin and prices.

JERVIS B. WEBB CO.
8951 ALPINE • DETROIT 4, MICH.
OFFICES IN PRINCIPAL CITIES

▲ Mention Item NED-3273 when writing ▲

'LOOK AT WELLMAN'

● Wellman Bronze & Aluminum Co., of Cleveland invites you to inspect their light metal casting facilities. Three modern plants make peak production of your requirements an actual fact. Modern laboratories. X-ray facilities.

Todays' preference is light metal casting in either magnesium or aluminum. Visit the Wellman plants in person or write for full particulars. Catalog No. 47 sent on request to the address below.

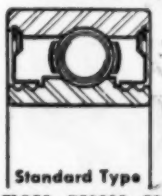
WOOD AND METAL PATTERNS • AMPCO BRONZE CASTINGS

WELLMAN BRONZE & ALUMINUM CO.
2563 EAST 93rd ST. CLEVELAND 4, OHIO

▲ Mention Item NED-3274 when writing ▲

NORMA-HOFFMANN "Cartridge" Bearings

- Simplify Design Problems
- Speed Assembly of Products
- Give Long Operating Life
- Improve Product Performance



Standard Type

Patented

This modern Norma-Hoffmann "Cartridge" Bearing improves product performance and lowers your production costs with these outstanding advantages — Double-row width provides 100% more grease capacity; relubricate only after years of service . . . Tight fitting wearless metal seals exclude dirt and dust . . . Increased shaft strength, reduced overhang . . . Full size balls give full load carrying capacity . . . Elimination of many parts and machining operations. Write for catalog giving full details on "Cartridge" Bearings.

NORMA-HOFFMANN BEARINGS CORPORATION
Precision Ball, Roller, Thrust Bearings
STAMFORD, CONNECTICUT

▲ Mention Item NED-3275 when writing ▲

DUPOR No. 46

U.S.B. of M. APPROVED RESPIRATOR FOR TYPE "A" AND LEAD DUSTS

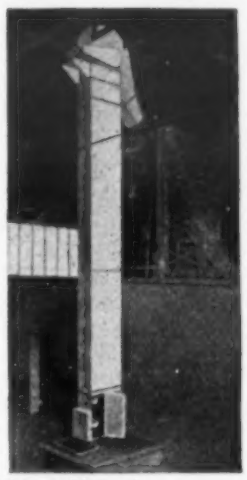
More than 46 sq. in. filtration area. Soft rubber face mask. U.S.B. of M. Approval BM-2124 for LEAD Dusts and ALL other toxic or poisonous dusts as well as Type A (Pneumoconiosis or Silicosis producing dusts). Unit has exclusive controlled breathing valves to guard against stale air. Maximum visibility—no interference with goggles or glasses.

Sample sent $2.50 pp

H. S. COVER
South Bend, Ind.

Mention Item NED-3276 when writing

BUCKET ELEVATOR



Vertical, centrifugal discharge type, spaced bucket L-Vator handles material such as nut and slack stoker coal at rate of up to 25 tons per hour. Unit is electrically powered and, by addition of intermediate sections, will operate efficiently on heights up to 45 feet. Welded steel buckets spaced at 16-inch centers on rubber elevator belt provide lifting action. Floating boot section acts as automatic take-up control and keeps belt taut at all times. Made by **Bosworth Mfg. Co.**, 6723 Denison Ave., Cleveland 2, O.

Mention Item NED-3279 when writing

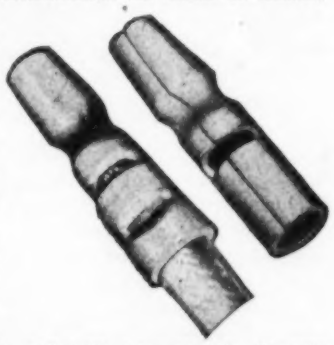
HYDRAULIC PRESSURE SWITCH

Operating range of this Hydtrol explosion-resistant pressure-actuated switch is from 50 to 5000 pounds per square inch. It is especially applicable to control of hydraulic systems containing inflammable liquids, and other uses include control of heavy plastics molding and metalworking presses and aircraft hydraulic systems. 'On-off' differential is adjustable and ranges from 5 to 50 per cent. Contact rating is 10 amperes at 110 volts alternating current or 2 amperes at 28 volts direct current. Electrical disconnect plugs or conduit fittings are optional. Switch contacts are snap-action single-pole double-throw and are protected against corrosion and moisture. Made by **Cook Electric Co.**, Diaphlex Div., 2718 Southport, Chicago 14, Ill.

Mention Item NED-3280 when writing

PLUG-IN TYPE TERMINALS

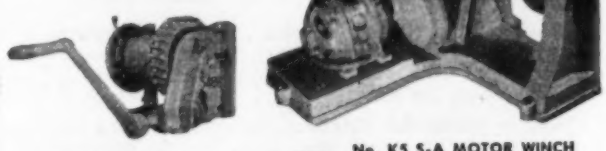
Solderless Shur-Plug plug-in type terminals handle 16-14 wire size and provide easy, convenient method of installing or replacing connections on leads in electrical appliances, automotive equipment, electrical equipment on machinery and other devices. Terminal is fastened to wire in a few seconds by means of AMP or pneumatic hand tool, or by foot or power press. Resulting connection has high electrical conductivity and corrosion resistance. Made by **Aircraft-Marine Products, Inc.**, 1573 N. Fourth St., Harrisburg, Pa.



Mention Item NED-3281 when writing

Cut Handling Costs WITH S-A WINCHES

Save time and manpower . . . one man can do the work of many . . . lifting and pulling with S-A Winches. S-A Hand Winches lift up to 2000 lbs. . . . Motorized units up to 6000 lbs. Over a dozen styles and sizes to select from. Get full data. Ask for Bulletin 340 and check savings.



S-A HAND WINCH STYLE No. 30

No. K5 S-A MOTOR WINCH

STEPHEN S-ADAMSON MFG. CO.

Tellevel—Bin Level Controls · Car Loaders · SealMaster Ball Bearings · Car Pullers · Winches · ChangeMaster Variable Speed Reducers · Saco Speed Reducers

12 RIDGEWAY AVE., AURORA, ILL.

Mention Item NED-3283 when writing

As Dependable as "Old Faithful" **VALVAIR Solenoid Valves**

Diagram shows double-acting air cylinder operated by Valvair 4-way solenoid valve, spring return.

DEPENDABILITY — That's outstanding in Valvair performance. Solenoids are Stellite-welded to resist wear; do not mushroom. Standard Valvairs have operated over 2,000,000 times at 100 lbs. with never a leak. *Exclusive features.* Patented basic design eliminates metal seats; non-corrosive (cast bronze body, stainless steel parts); full pipe area used with minimum drop. 2-way, 3-way, 4-way types. Get full details and prices.

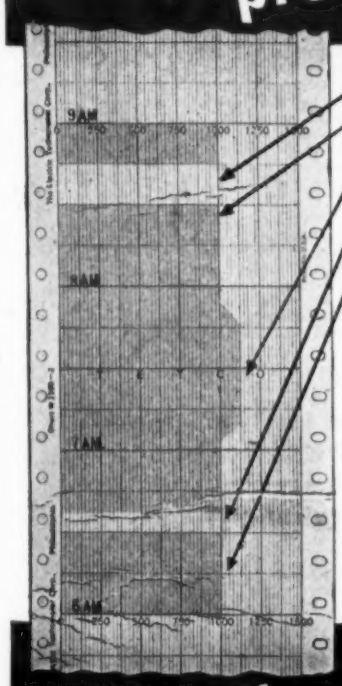
Ask for Bulletin A N

VALVAIR CORPORATION · 454 Morgan Avenue, Akron 11, Ohio

Valvair 2-WAY 3-WAY 4-WAY

Mention Item NED-3277 when writing

who's watching production?



Machine stopped from 8:30 a.m. to 8:45 a.m.

Reduced to normal operating speed at 7:55 a.m.

Speed increased to 1125 r.p.m. from 7:10 a.m. to 7:45 a.m.

Machine stopped 8 minutes beginning at 6:30 a.m.

Smooth, continuous production.

Today's labor costs accent the importance of maintaining and analyzing a PERMANENT RECORD OF SPEED AND PRODUCTION. The new Electric Tachometer Speed Recorder provides this record in convenient, easily-analyzed chart form as shown by a section of a typical paper mill chart illustrated here. In addition to its routine uses, this chart provides a permanent record of value in analyzing the cause of stoppages, increasing production, and reducing costs.

the new ELECTRIC TACHOMETER speed recorder

RUGGED—ACCURATE—GEAR-DRIVEN—ELECTRICALLY OPERATED!

Sustained accuracy. No calibration required.

Integral counter records total production.

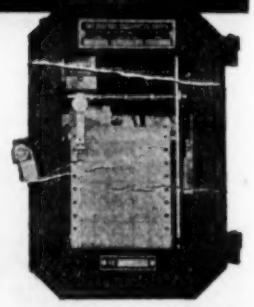
Equal torque at all speeds.

Not affected by changes in temperature or vibration.

Recorder may be located by machine or at any remote location.

Convenient speed ratio and light torque make possible either gear, pulley, or friction drive.

Used chart re-rolled automatically—or record for any desired period may be detached.



ELECTRIC TACHOMETER RECORDER MODEL R-300-H

THIS CHART USEFUL IN:

Roofing Paper Mills • Central Stations • Railroads • Glass Factories • Engine Factories • Rubber Mills • Textile Mills • Steel Mills • Cement Mills • Wire Factories • Metal Parts Stamping Factories • Newspaper and Publishers' Plants • Chemical Plants • Etc.

FOR COMPLETE INFORMATION write to—

ELECTRIC TACHOMETER

THE ELECTRIC TACHOMETER CORPORATION
2212 Vine Street, Philadelphia 3, Penna.

Complete Indicating and Recording Electric Tachometer Systems • Indicating Meters • Custom-built Magnetos • Contactors • Electric Counters • Mechanical Counters • Recorders

HEADQUARTERS FOR MARINE AND INDUSTRIAL TACHOMETERS FOR OVER 35 YEARS

Mention Item NED-3284 when writing

AIR-MITE

HOLDING and HANDLING EQUIPMENT

WRITE for complete new general catalog of AIR-MITE pneumatic spring return material holding devices, arbor presses, fittings and controls.

AIR-MITE, 2653-C W. Lake St., Chicago 12, Ill.

Mention Item NED-3278 when writing

DUO-FAST

FITS YOUR BUSINESS *Like A Glove*

TIME SAVING Tacking Team

Model No. CT-850 *Model No. HT-550*

It's the Duo-Fast tacking team for speed and accuracy. One hand does the complete job easily. Both tackers use same size Duo-Fast staples.

Your Duo-Fast Specialist is a good man to know—he may have ideas to speed up your production and cut your costs. Write us for the name of the man in your territory.

FASTENER CORPORATION

862 FLETCHER ST. CHICAGO 14, ILL.

Mention Item NED-3282 when writing

Recommended ... FOR BEARING SATISFACTION

Peak performance, minimum maintenance and long service are assured by SealMaster's exclusive combination of features.

1 **PERMANENT SEAL.** Patented centrifugal seal excludes dirt and retains lubricant.

2 **SELF-ALIGNING.** Bearing assembly is self-aligning in housing. Shaft misalignment cannot distort seals.

3 **PRE-LUBRICATED.** All SealMasters are shipped ready for use — with lubricant sealed in.

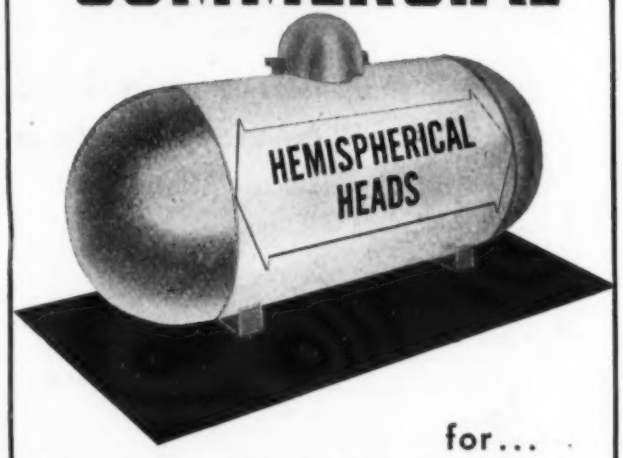
4 **PATENTED LOCKING PIN.** Positions unit for re-lubrication. Prevents outer race rotation and housing wear

BEARING DIVISION
STEPHEN S-ADAMSON MFG. CO.
18 RIDGEWAY AVENUE, AURORA, ILLINOIS • LOS ANGELES, CALIF. • BELLEVILLE, ONT.

Factory Representatives and Dealers in All Principal Cities

Mention Item NED-3285 when writing

"COMMERCIAL"



for...
STORAGE TANKS · FLOATS · BUOYS · UNFIRED PRESSURE VESSELS

WRITE FOR FOLDER

THE COMMERCIAL SHEARING & STAMPING COMPANY
YOUNGSTOWN 1, OHIO

Mention Item NED-3286 when writing

Announcing a NEW EXACT WEIGHT Scale — 75lbs. Capacity . . . .

Many post war industrial operations are now requiring precision weighing up to 75 lbs. To meet this demand EXACT WEIGHT Engineers have designed, built and thoroughly field tested the new end tower unit (illustrated). The new model No. 2004 is built on the famous EXACT WEIGHT end tower principle for speed of operation and features (1) strong construction for hard use (2) base length 30" with dial elevations of either 29" or 35" (3) beam 1 lb x 1/4 oz or 2 lbs x 1/2 oz (4) dial 3" equals 8 ozs over and underweight (5) heavy grilled platter 16" x 16" or 16" circular solid platter. May be equipped with sack rest for packaging. Can be used in table or low bench operation as work demands. Write for full details covering your problem.

INDUSTRIAL PRECISION
Exact Weight Scales

THE EXACT WEIGHT SCALE COMPANY
129 W. Fifth Avenue, Columbus 12, Ohio
783 Yonge St., Toronto 5, Canada

Mention Item NED-3287 when writing

SELF-CENTERING SHAFT VISE

This self-centering vise can be mounted for vertical or horizontal use and will hold shafts or spindles from ⅜ to 3½ inches in diameter in 4½-inch jaws for machining of keyways, slots or splines. Accurate right and left-hand thread on operating screw assures equal movement of both jaws for clamping and centering work in hardened V-block. Handwheel on screw provides for rapid opening and closing. Made by **Producto Machine Co.**, Bridgeport, Conn.

Mention Item NED-3288 when writing

HEAVY-DUTY ARC WELDER

Two models of this high-cycle alternating current arc welder are available for heavy-duty industrial use. Units have 200 and 300-ampere output and feature precision electrical circuit which holds welding arc constant with selective heat settings in 1-ampere steps. Feather-touch control at electrode holder is especially suited for electronic fluxing and oxide dispersal requirements. Remote control of high frequency circuit eliminates radio interference. Made by **Mid-States Equipment Corp.**, Dept. NED, 2429 S. Michigan Ave., Chicago 16, Ill.

Mention Item NED-3289 when writing

REPRODUCTION UNIT

Ammo-Fume dry process developing unit equipped with dry developer produces clear, sharp, positive dry prints with black, red, blue, yellow or sepia lines and images on any type of paper or material sensitized to ammonia fumes. Designed for use in offices, drafting rooms or laboratories, reproduction unit provides uniformly accurate prints and will develop also continuous prints up to 42 inches wide from cut sheets or roll stock in any length at rate of 5 feet per minute.

Combination reproduction unit includes B-2 or B-3 continuous printer, dry developer and combination floor stand. Operation is on 110-volt 60-cycle alternating current. Made by **Peck & Harvey**, 5736 N. Western Ave., Chicago 45, Ill.

Mention Item NED-3290 when writing

Look to Your Traps for Savings

If you've got Webster "78's", like this fellow, you are getting prompt, continuous condensate drainage. You are getting maximum production from your steam-using process equipment by providing automatic, complete discharge of *both* air and water.

If you are *not* getting results like these — investigate Webster Traps.

WARREN WEBSTER & CO.
1707 Federal Street, Camden, N. J.
Representatives in principal Cities
In Canada: Darling Bros., Ltd., Montreal

Webster HEATING

Mention Item NED-3291 when writing

QUICK-READING TEMPERATURE-CONVERSION TABLES

For speed, when you're converting degrees F to C, and vice versa, you can now use a simple, compact "Sauveur-type" table all the way from absolute zero to 3350 C and 6062 F, in increments of one degree.

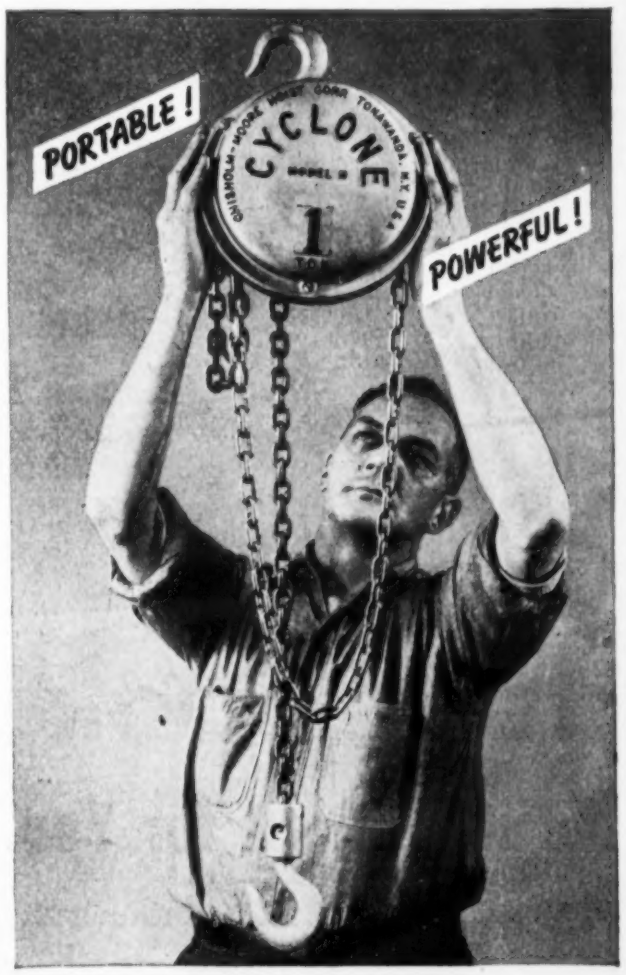
For quantities, there's a slight charge; ten copies for 75c; 50 for $3.25; 100 for $6.00. To minimize bookkeeping, we must ask that orders be accompanied by check for the exact amount, addressed to our Advertising Dept . . . but please note that a single copy will be sent free on request. Better get one!

LEEDS & NORTHRUP COMPANY, 4985 STENTON AVE., PHILA. 44, PA.
LEEDS & NORTHRUP
MEASURING INSTRUMENTS · TELEMETERS · AUTOMATIC CONTROLS · HEAT-TREATING FURNACES
Jrl Ad EN-33(1)

Mention Item NED-3292 when writing

NEW! CM CYCLONE

Model M HEAVY DUTY HIGH SPEED HOIST
Capacities from ¼ ton up



96% EFFICIENCY... Conserves worker energy and increases productivity
42% FEWER PARTS... Simplifies maintenance
63% LESS WEIGHT... 1 ton weighs only 35 lbs. 2 ton weighs only 59 lbs. 3 ton weighs only 90 lbs.

Plus **SEALED-IN LIFETIME LUBRICATION** prolongs life . . . reduces wear — *Plus* **HERC-ALLOY** America's First and Safest Steel Load Chain.

The CM Cyclone Model M, constructed of today's stronger alloys of steel and Alcoa Aluminum, is years ahead as a production and maintenance tool. New type load brake with smooth, positive control aids in spotting and assembly work. Thousands of these extra value hoists are already in service, daily demonstrating their superior performance.

Ask your distributor to show you the new Cyclone Model M Hoist

CHISHOLM-MOORE HOIST CORPORATION
(Affiliated with Columbus McKinnon Chain Corporation)
GENERAL OFFICES AND FACTORIES: TONAWANDA, N. Y.
SALES OFFICES: New York • Chicago • Cleveland • San Francisco • Los Angeles

Mention Item NED-3293 when writing

THOUSANDS of men in industrial plants, mines and mills all over the country are doing just what this man is doing. They are cutting costs by repairing conveyor belts with Flexco HD Rip Plates.

WRITE TODAY FOR BULLETIN F-100 that shows how easy it is to repair rips, to strengthen soft spots and to put in patches by using Flexco HD rip plates. The bulletin also shows how to make tight butt joints in both conveyor and elevator belts with Flexco HD Belt Fasteners. These fasteners are made in six sizes. Furnished in special analysis steel for general use and in various alloys to meet special conditions.

FLEXIBLE STEEL LACING CO.
4664 Lexington St., Chicago, Ill.

FLEXCO HD BELT FASTENERS
Sold by supply houses everywhere

Mention Item NED-3296 when writing

SHEET HANDLING DEVICE

Designed to facilitate handling of sheets, plates or other flat surface articles, this Merrill Strong Finger Grip enables one man to grip sheet, extract it from a

pile and quickly drag it to desired location. Device operates on two-way wedge and level fulcrum principles. The harder the pull, the harder the clamp grips. Convenient handle bar permits clamp to be carried between first and second fingers. Eye can be furnished for attachment to conveyor system or mechanical lifting arrangement. Weight of clamp is 28 ounces and it is fabricated of steel forgings. Made by **Merrill Brothers**, 46-18 Arnold Ave., Maspeth, N. Y.

Mention Item NED-3298 when writing

LUMINOUS SAFETY SIGNS

Having appearance of ordinary signs under artificial light or daylight, these phosphorescent safety signs are visible also in total darkness. They are suitable for marking entrances and exits and to provide other directions in industrial plants, hotels, theaters and other places where people may require such information in case of power failure. Made by **Nulite Displays Co.**, 15 E. 26th St., New York, N. Y.

Mention Item NED-3299 when writing

FORK LIFT TRUCK

Added to standard line of Chore Boy industrial power trucks, this 2000-pound capacity Thrifty Lift fork truck is powered by four-cycle two-cylinder air-cooled gasoline engine and is available with lifts of 7, 8 or 9 feet. Tilt and lift mechanism is fully hydraulic. Rubber cushion 16 x 4-inch tires are standard equipment. Truck features means to change immediately from forward to reverse drive without operator touching gear shift lever. Truck less forks is 63⅜ inches long by 32 inches wide and has outside turning radius of 59 inches. Made by **Buda Co.**, 15440 Commercial Ave., Harvey, Ill.

Mention Item NED-3300 when writing

FLASH CIRCLE BURNER eliminates cumbersome extra hose .... haphazard manual methods ... GUESSWORK. Simple height and radius adjustment. Works vertically or horizontally. Tracking wheel holds tip proper distance from work .... SAVES TIPS.

ADAPTORS AVAILABLE FOR CUTTING TO EDGE OF STOCK AND FOR EXTRA LARGE CIRCLES.

Send for Descriptive Folder or Order From

AIRCO GASWELD
HARRIS OXWELD
K-G NATIONAL
MECO PRESTOWELD
PUROX TORCHWELD
REGO VICTOR
SMITH WELDIT

Order by Make and Model

$6.50

Price Subject to Change.

SCIENTIFIC RESEARCH CO. 1616 N. VANCOUVER AVENUE, PORTLAND 12, OREGON

Mention Item NED-3302 when writing

Licks Breakdown

"When a large spur gear broke on our conveyor," writes R. P. of New York, "the pressure on me was tough because production was held up all along the line. The maker couldn't get a gear to me within two weeks. I was stumped. Then my eye fell on the Boston Gear Catalog and I combed the pages, hoping there would be something I could use. Suddenly, there it was . . . right on page 42 — the very gear I needed! For my money, that catalog couldn't be more valuable if it were printed in 24 carat gold."

Great data book!

Put it to work for You.

FREE This valuable data book which shows you how to make important savings in design, manufacturing and maintenance costs using Boston *Stock* Component Machine Parts. Contains 101 separate groups of products — gears, chain, sprockets, speed reducers, etc. — 4326 individual items — engineered, mass produced to custom standards for your application. Also contains much valuable working data for designers, engineers, maintenance men.

Name ..... Position .....
Company .....
Street .....
City ..... Zone ..... State .....

BOSTON GEAR WORKS
One of the world's most complete lines
62 distributors in major cities
23 Hayward Street, Quincy 71, Massachusetts

Mention Item NED-3297 when writing

HOW TO INSTALL AN OIL SEAL IN TEN SECONDS FLAT

Completely new in principle, the Johns-Manville split-type Clipper Seal, with detachable garter spring, can be installed with minimum down time.

These three simple steps complete the job (1) Hook the detachable garter spring around shaft. (2) Spread the seal apart at the split as shown above and slide it over the shaft. (3) Slip garter spring inside groove in seal, press assembly into the cavity.

For shafts up to 66" in diameter . . . sealing against oil, grease, water, air, grit and coolants . . . operating up to 450°F. For details write Johns-Manville, Box 290, N. Y. 16, N. Y.

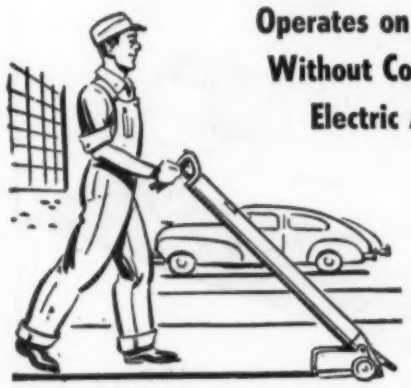
Johns-Manville PACKINGS & GASKETS

Mention Item NED-3301 when writing

NOW! Safety and Parking Lines at Walking Speed!

The "FLORLINE"

MARKING MACHINE



Operates on Gravity Feed . . . Without Compressed Air or Electric Attachments!

$89.50 F.O.B. DETROIT

Factory maintenance men, auto dealers, service garages and parking lot operators INDORSE the "Florline". Here is a one-hand . . . one-man operation. Nothing to go wrong. Easy to use . . . easy to clean. It's portable! It's sturdy! It's compact! It's lightweight! Simple to store. Makes curved or straight lines continuous or skip, 2, 3 or 4 inches wide. Operates efficiently in narrow aisles. Holds 1½ gals. paint, lacquer or whitewash. Interchangeable carriages available.

Dealerships Available Some Areas

H. C. SWEET COMPANY
3729 Fenkell Avenue Detroit 21, Mich.

Mention Item NED-3303 when writing

AMAZING all-purpose ELECTRIC TOOL will
- Drill up to ¼" dia.
- Ream up to ½" dia.
- Tap up to ½" dia.
- Run Nuts up to ⅝" dia.
- Drive Screws up to ⅝" dia.
- Hole Saw up to 1½" dia.
- Bore Wood up to 29/32" dia.
- Drive Studs up to ⅝" dia.
- Drill Masonry up to ⅝" dia.
- Extract Broken Studs up to ⅝" dia.
- Wire Brush up to ⅝" dia. shanks.

(Uses Standard Attachments)
(110 V or 220 V Models available)

Make it the ONLY all-purpose Electric Tool

The tremendous power of the "rotary impacts" performs a multitude of operations not possible with any other electric tool. What's more remarkable—there is *no kick—no twist* to the operator.

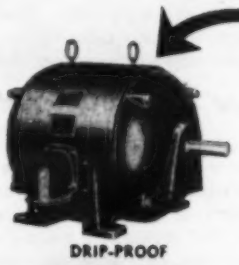
The IMPACT Tool is the greatest labor-aiding, time-saving portable power tool ever offered. It will save up to 90% of the time on nut running operations alone.

Call your Distributor now for a demonstration of this amazing all-purpose electric tool. They're available for immediate delivery.

Ingersoll-Rand
11 BROADWAY, NEW YORK 4, N. Y. 239-10

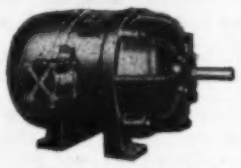
Mention Item NED-3304 when writing

BUILT FOR INDUSTRIAL USES— LIMA MOTORS HAVE TO BE GOOD!



DRIP-PROOF

LIMA Drip-Proof . . . built for Industrial Applications requiring motor protection against failures caused by dripping liquids, flying chips, filings, etc., so prevalent in a production line



TOTALLY-ENCLOSED

LIMA Totally-Enclosed . . . Built for Industrial Applications requiring motor protection against dust, cinders, silt, dripping or splashing liquids, etc.

ALSO . . . Special Motors, Rotors and Stators for 1, 2 or 3 phase, in all commercial frequencies and voltages below 600

THE LIMA ELECTRIC MOTOR CO.
377 Findlay Road
LIMA, OHIO
REPRESENTATION IN MOST PRINCIPAL CITIES
LIMA GEARSHIFT DRIVES
LIMA PEDESTAL GRINDERS — LIMA ELECTRIC MOTORS

Mention Item NED-3305 when writing

THE ANSWER To Many LIFTING Problems

LYON-Raymond PORTABLE HYDRAULIC ELEVATING TABLE

Worried about costs? Speed? Safety? Damage? — and other factors in handling materials? Then look into these many jobs this handy Lyon-Raymond Elevating Table is designed to do.

HERE-ARE JUST 12 OF ITS USES:

1. Die handling
2. Sheet feeding
3. Adjustable section in conveyor system
4. Work table
5. Assembly bench
6. Positioning work to machine
7. Support for overhanging work
8. Adjustable test bench
9. Transfer table
10. Positioning parts for attachment
11. Welding positioner
12. Loading and unloading

We have prepared an illustrated bulletin full of suggestions that methods engineers will find most helpful. It's free! Write for your copy today!

LYON-Raymond Corporation
693 Madison St., Greene, N. Y.

Mention Item NED-3306 when writing

There's a practical answer to most tracing reproduction problems

The development, manufacturing and servicing of all reproduction materials makes us thoroughly familiar with the possibilities as well as the limitations of each process. Post representatives are thoroughly versed in the functions of all reproduction materials—if unusual circumstances are present—our technical specialists enter the picture without obligation. It pays in practical results to consult your Post representative first.

THE Frederick Post COMPANY
3650 North Avondale Avenue • Chicago 18, Illinois

POST

Vapo — Direct dry ammonia development
Blue Print — Standard Process
Blacline — Direct semi-moist development
Masterrepro — Reproduction on tracing cloth
Brown Print — Standard negative or positive

Mention Item NED-3307 when writing

FLOOR SANDING MACHINE

Adequate power to withstand most overloads and also good weight distribution are afforded in Master Professional Tandem 12 floor sanding machine through use of two tandem mounted 1½-horsepower electric motors. Automatic belt tighteners eliminate slack and prevent chatter while machine is in operation. Self-aligning New Departure bearings are grease-sealed for life. Additional features include compensator springs to reduce operator fatigue, readily serviced demountable drum cushion, detachable top housing and motors for ease in transporting, and 7-inch Whirlwind suction fan for dust-free operation. Made by **Holt Mfg. Co.**, 651 Twentieth St., Oakland 12, Calif.

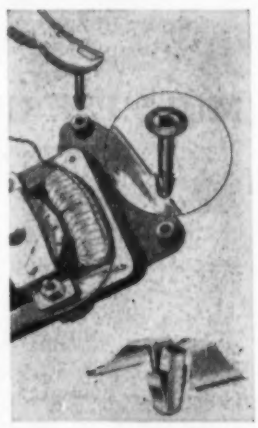
Mention Item NED-3308 when writing

DRAIN CLEANING DEVICE

Utilizing power from ordinary soda charger cartridge, Bates New-Matic drain cleaner fits over clogged drain and forces obstructing matter on through line. Readily available carbon dioxide cartridges are placed in device and tightened until pressure is released into drain cleaner. Latter is then placed over plugged drain, and easy push allows pressure to clear drains. Distributed by **Davison, Proctor Sales Co.**, 7 Water St., Boston 9, Mass.

Mention Item NED-3309 when writing

SNAP FASTENING DEVICES

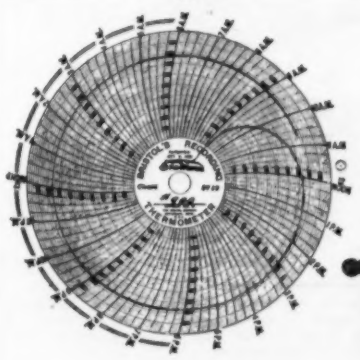


Integral extended spring prongs of push-in type snap fastening devices permit them to hold parts together without use of threads or special receptacles. Stamped from spring steel, unit forms resilient, vibration-resistant lock to hold sheets, panels, brackets and other parts in place. They will accommodate material thickness variations of more than 1/16-inch without loss of efficiency. Because they are flexible in design, they form economical means of effecting wide variety of assembling operations.

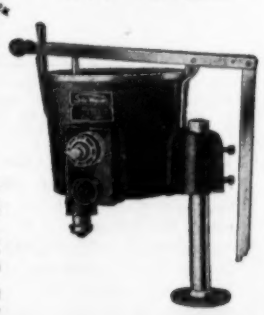
When fastener is pushed into punched or drilled hole, extended spring prongs are compressed. They spring out on far side of joint to hold assembly together under constant spring tension. Made by **Shakeproof Inc.**, 2501 N. Keeler Ave., Chicago 39, Ill.

Mention Item NED-3310 when writing

How's THIS... for control of compound melting temperatures?



Temperature variation only 1° F. + or — around the clock with Sta-Warm bi-metallic fixed thermostats on your compound heating pots.



Keep heated compounds at correct temperature for pouring, dipping or dispensing and you will never be troubled with carbonizing or cold lumpiness to delay production.

Outstanding feature of all Sta-Warm compound heaters of all types is their ability to maintain correct temperature within narrow tolerances.

With a Sta-Warm, your compound melting problems are over. Get the low-down on Sta-Warm today.

Sta-Warm ELECTRIC CO.
130 N. CHESTNUT ST. • RAVENNA, OHIO

Mention Item NED-3311 when writing

FIGHT FIRES THE Easy Way!

NEW ROCKWOOD LIGHTweight TRIPLE-ACTION WaterFOG NOZZLE

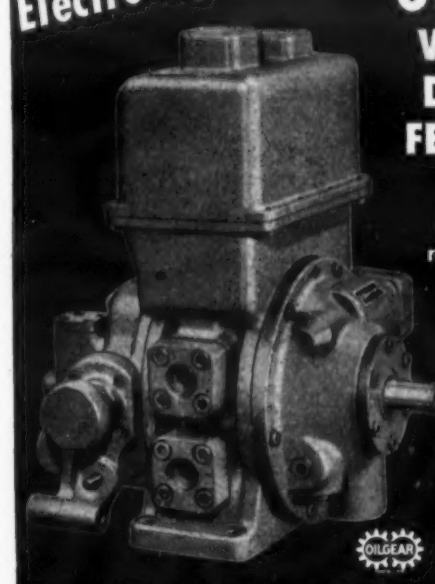
NEW TYPE SG-48 MADE OF SPECIAL ALUMINUM-ALLOY

New LIGHTweight type SG-48 WaterFOG Nozzle will extinguish fires in ordinary combustibles and flammable liquids *faster and with less water.* Easy to install and operate, the new type SG-48 WaterFOG Nozzle discharges (1.) High velocity WaterFOG (2.) Straight stream (3.) Low velocity WaterFOG from Extension Applicator. Write for bulletin C-501R

ROCKWOOD SPRINKLER CO.
44 HARLOW STREET WORCESTER 5, MASS.

Mention Item NED-3312 when writing

It's New! Electro-Hydraulically Controlled OILGEAR VARIABLE DELIVERY FEED PUMP



For nearby or remote mounting

Small size fits space available in your machine design

Simple construction easy to service

For Machine Tool and Other Straight Line Feeds

The new Oilgear Feed Pump is a compact packaged unit designed in every way to simplify the problem of applying fluid power to a machine tool, process equipment or other straight line feed installation. Control is entirely electro-hydraulic, requiring only pushbuttons to be mounted on the operating side of your machine. The Feed Pump itself may be installed wherever space is available, either as part of your machine, or nearby, or remotely.

The Feed Pump is installed simply by connecting two pipes to a suitable double acting cylinder and hooking up the solenoids with pushbutton and limit switch controls.

Variable delivery pumping element, rapid traverse gear pump, solenoid operated control and relief valves are integral with the Feed Pump itself. There is NO mechanical control linkage . . . NO auxiliary pipes or valves. Valves and units can be serviced without disconnecting pipes or draining the oil reservoir.

A wide range of feed rates is provided by the new Oilgear Feed Pumps. Feed rate is established by the volume of oil delivered by the pump. Any pre-set feed rate is maintained consistently throughout the cycle, despite variations in load or change in resistance. A new Oilgear development maintains constant feed efficiency over long periods of service. THE OILGEAR COMPANY, 1316 W. Bruce St., Milwaukee 4, Wis.

Ask for New Bulletin

Bulletin 44110 completely describes the new Oilgear Variable Delivery Feed Pump. A copy will be sent free at your request. Write today.

Oilgear Fluid Power

PUMPS, MOTORS, TRANSMISSIONS, CYLINDERS AND VALVES

Mention Item NED-3313 when writing

NEW SILACRON FLOOR CEMENT

PERMANENT REPAIRS IN 6 HOURS

★ Self bonding.
★ No asphalt or "mastic"
★ Absolutely impervious to oil.
★ Will not rut—easy to truck on.
★ Outwears concrete four to one.
★ Ready mixed—easy to apply.

Ask for Bulletin No. 122

DO IT RIGHT WITH HALLEMITE

THE HALLEMITE MANUFACTURING CO.
CLEVELAND 13, OHIO

▲ Mention Item NED-3314 when writing ▲

ASK FOR SAMPLES

FLEXLOC ONE-PIECE

SELF-LOCKING NUTS

The one-piece, all-metal "Flexloc" packs maximum usefulness in minimum space by combining, as it does, a stop, a lock and a plain nut all in one.

Every thread—including the locking threads—takes its share of the load. "Flexloc" accommodates itself to a wide range of thread tolerances . . . can be used over and over again without losing much of its locking torque . . . is not affected by temperatures likely to be met within the field of Mechanical Engineering . . . and being a "stop" nut, it stays locked in any position on the threaded member. The "Flexloc" is processed to have an exceptionally uniform torque.

The *Thin* "Flexloc" has become very popular because its *tensile* is so high and the space it occupies so small.

Sizes from #6 to 2" in diameter—in "regular" and "thin" types—in NC and NF thread series. Write for "Flexloc" Catalog.

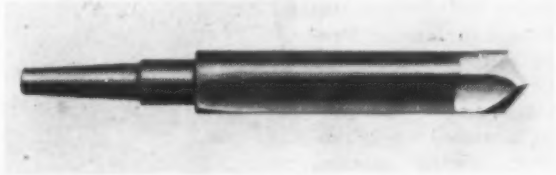
OVER 45 YEARS IN BUSINESS

STANDARD PRESSED STEEL CO.
JENKINTOWN, PA. Box 581
BOSTON • CHICAGO • DETROIT • INDIANAPOLIS
ST. LOUIS • SAN FRANCISCO

▲ Mention Item NED-3315 when writing ▲

CARBIDE TIPPED DRILL

Designed to drill clean, accurate holes in granite, hard brick, pebble concrete or hard masonry material, this carbide tipped Blue Cyclone hammer type drill is available in 3/8, 7/16, 1/2, 5/8, 3/4 and 1-inch sizes. Tapered shanks fit Rawl chucks which in turn fit any electric or pneumatic hammer. Made by **New England Carbide Tool Co.** 60 Brookline St., Cambridge 39, Mass.



▲ Mention Item NED-3316 when writing ▲

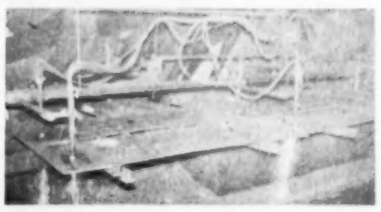
IMPACT PRESS

Capable of producing impact pressure ranging from few ounces to 6500 pounds per square inch, this air operated bench type impact press is suitable for assembling, flanging, marking, forming, riveting and similar operations. Ram force is derived from heavy die type spring which is compressed by BM-10 integral-valve double-acting air motor. Resting directly on ram, spring is held in place by spring-loaded trigger mechanism. Spring compression is adjusted quickly by lock nuts on threaded portion of air motor piston rod. When piston rod is fully extended, spring is released automatically, and air motor returns ram to starting position where it is locked automatically.

Solid steel ram shaft has maximum clearance of 13-7/16 inches and maximum movement of 1-1/4 inches with vertical adjustment of 12 inches. Throat clearance from center of ram is 7 inches. Single air line providing pressure up to 175 pounds per square inch can be used to supply power. Electrical or manual controls for hand or foot operation can be supplied. Made by **Bellows Co.**, 862 E. Tallmadge Ave., Akron 10, O.

▲ Mention Item NED-3317 when writing ▲

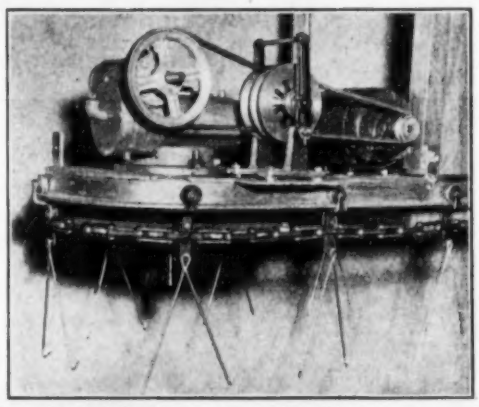
MULTIPLE CUTTING UNIT



Multiple Thermochemical cutting unit is designed for attachment to Oxygraph or Travograph burning machines and enables user to cut large pieces of material in multiples. Illustration shows how output of machine was increased 100 per cent by addition of two attachments so that four pieces are cut whereas two were most that could be burned at one time previously. Made by **Oakley Steel Products Co.**, 330-336 N. Oakley Blvd., Chicago 12, Ill.

▲ Mention Item NED-3318 when writing ▲

KEYSTONE JUNIOR CONVEYORS



100% prefitted. Bolted joints. No track welding, cutting or fitting required for installation. Easily installed. Low first cost. Overhead or floor supported. Load capacity 75# per trolley. Rivetless Drop Forged chain 2" pitch. Ball-bearing trolleys.

KEYSTONE JUNIOR CONVEYORS are identical to their big brothers—the 348 and 458 conveyors, which are the accepted standard throughout the world. The Keystone Junior picks up where the 348 leaves off. Handling loads of 75# per trolley or live loads of up to 10,000# it is a Little Giant. Caterpillar or Corner Drives available. Vertical turns as small as 2' Radius. Horizontal turns as small as 9" Radius. Rotating hooks available for use in spray booths, ovens, etc. Conveyor speeds from 3-I.P.M. to 80 F.P.M. available.

Write for Bulletin No. 448

BEVERIDGE MILLWRIGHT SERVICE, INC.
7376 Grand River Ave. Detroit 4, Mich.

▲ Mention Item NED-3319 when writing ▲

Want to Start Something?

USE CLARK PUSH BUTTONS

CLARK Type D Push Buttons, featuring silver-to-silver, button type, double-break contacts, bakelite insulating parts, large electrical clearances, and plenty of wiring space, provide low maintenance and long life in heavy-duty operations. Push button stop is independent of contacts.

Types for every need

Illustrated at left is 9-unit pendant type station with rod operated stop. Other stations with 1 or more units available in a great variety of contact requirements and enclosures. Included are 1½" and 2¼" mushroom heads, selector switches, pilot lights, etc. Water-tight and Dust-tight enclosures and Oil-tight elements.

Type EE Standard Duty

Type EE Standard Duty is for ordinary starter applications to 150 amperes. Pressed Steel Enclosure.

Type RN—Roughneck has mushroom head and cast metal enclosure with rounded shoulders for rough usage.

Type RN "Roughneck"

Write for Bulletin 100.

THE CLARK CONTROLLER CO.
EVERYTHING UNDER CONTROL — 1146 EAST 152nd STREET, CLEVELAND 10, OHIO

▲ Mention Item NED-3320 when writing ▲

HERE'S THE EASIEST WAY TO

• CUT HANDLING COSTS
• INCREASE PRODUCTION
• PREVENT ACCIDENTS

Æ

LO-HED ELECTRIC HOISTS AND CAR PULLERS

Slash your handling costs, boost production and prevent costly accidents by putting Lo-Hed Hoists and Car Pullers to work in your plant. Lo-Hed Hoists are built on the original low headroom principle, a plus feature you pay no premium for, in ¼ to 12 ton capacities. Lo-Heds are heavy-duty hoists, high in performance, low in maintenance—the hoists for handling materials overhead. Write for free Hoist and Car Puller Catalog.

Car Puller

Moving railroad cars, pulling skids, hauling products is a cinch with Æ Lo-Hed Car Pullers on the job.

LO-HED *Electric Hoists* AND CAR PULLERS
Products of American Engineering Company
Philadelphia 25, Pennsylvania
In Canada { Galbraith & Sulley Limited, Vancouver, B. C.
Affiliated Engineering Corporations Limited, Montreal and Toronto

▲ Mention Item NED-3321 when writing ▲

Solution to Your Problem?

KNOW ALL THE PROPERTIES OF LUMITE INDUSTRIAL FABRICS

I. Virtually Chemically Inert

Practically no acid or alkali can affect Lumite (woven-saran) Industrial Fabrics. They're virtually chemically inert. You can filter or sift any material or agent through a Lumite Fabric of the right weave and filament size.

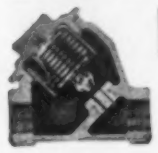
Other Properties include resistance to abrasion, dimensional stability, no moisture absorption, resilience, non-toxicity. One or more may solve a process or product problem for you. Write for samples. Tell us your problem. Lumite Division, Chicopee Manufacturing Corporation, Dept. C-5, 47 Worth Street, New York 13, N. Y.

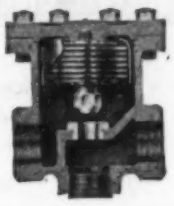
LUMITE® INDUSTRIAL FABRICS
Woven of saran

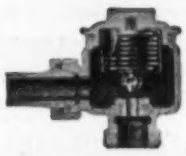
▲ Mention Item NED-3322 when writing ▲

More Service Tests Confirm that Nicholson Steam Traps Furnish . . .

2 to 6 Times MORE DRAINAGE Capacity







Recent comparative tests by large users of steam traps again showed the unequalled drainage capacity of Nicholson traps. The record low for steam waste was also shown. Some Nicholson features: larger valve orifice; operate on lowest temperature differential; no freeze-ups; no adjustment of valve or seat.

Put a Nicholson Trap on Test

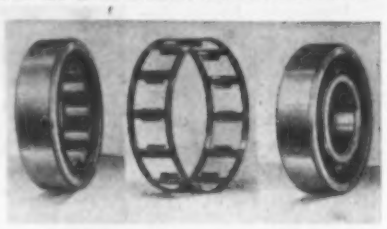
See why leading plants are increasingly standardizing on Nicholson steam traps. We'll gladly send one for testing. 5 types for every application: size ¼" to 2"; press. to 225 lbs. BULLETIN 1047.

W. H. NICHOLSON & CO. 162 OREGON STREET WILKES-BARRE, PA.

Valves ★ Traps ★ Steam Specialties

▲ Mention Item NED-3323 when writing ▲

CYLINDRICAL ROLLER BEARING



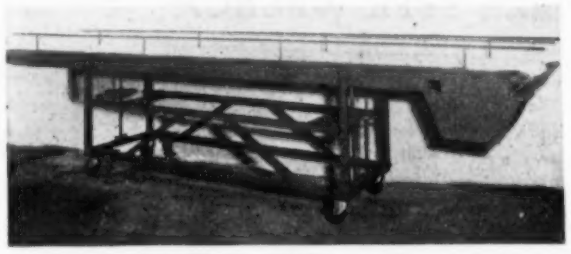
Tru-Rol cylindrical roller bearings are available in range of sizes conforming with SAE standards and feature one-piece steel retainer with pockets having deep, broad, double flanges which keep rollers in alignment. Outer race has accurate ring grooves on inside diameter into which heavy snap rings fit to retain rollers and retainer. Inner race is separate and is interchangeable.

Series BE-1200 and BE-1300 bearings correspond to single-row type of 200 and 300 size respectively. Series BE-5200 corresponds to wide type. Bearings can be applied using inner race or without inner race depending upon application. Made by **Rollway Bearing Co.**, 2541 Seymour St., Syracuse 4, N. Y.

▲ Mention Item NED-3325 when writing ▲

PORTABLE BELT CONVEYOR

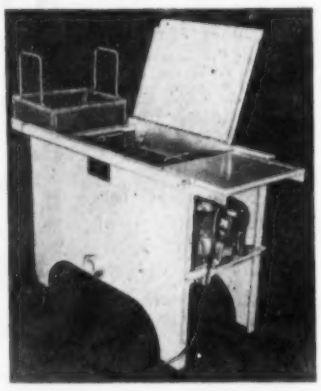
Featuring reversible belt travel, positive handwheel raising or lowering of either end, and floor locks to provide stability, this portable 15-foot booster belt conveyor



can be used singly, in multiple or in conjunction with other conveyors. Unit is 24 inches wide and is equipped with reversible three-ply solid woven cotton duck belt. It is well suited for handling cartons, boxes, crates and similar packages. Several standard models are available, and special units built to specification can be supplied. Made by **Sage Equipment Co.**, 28 Essex St., Buffalo 13, N. Y.

▲ Mention Item NED-3326 when writing ▲

PARTS CLEANING MACHINE



Positive action of this Klene-Ezy parts cleaning machine assures fast and thorough removal of grease, oil, sludge, carbon, abrasives or other deposits. Swirling, turbulent action of solvent can be regulated to suit cleaning need. Unit can be used for either hot or cold washing and has convenient drains for muck removal and provision for reclaiming solution. Solvent chamber has 30-gallon capacity. Machine is sturdily built and has hinged cover which facilitates loading and unloading. Made by **Cincinnati Cleaning & Finishing Machinery Co.**, 18 Hecla St. Ironton, O.

▲ Mention Item NED-3327 when writing ▲

We are in business to save you money

CUTTING TOOLS

MILL SUPPLIES

$500,000.00 STOCK

NEW, PRIME, STANDARD BRANDS

IMMEDIATE DELIVERY FROM OUR WAREHOUSE

- **Substantial Discounts** Beyond your regular replacement costs.
- **150,000 Standard Files** C Clamps, Tap Wrenches, Blocks, Tape, Brushes
- **$100,000.00 Stock Milling Cutters** Electric Soldering Irons, Chisels, Calipers, Etc. Etc. Etc. and hundreds of other items too numerous to mention

See our inventory; or call, write, or wire for our lists

INDUSTRIAL MATERIALS CO. OF AMERICA

420 EAST 8th STREET • LOS ANGELES 14, CALIF.

Call VIC CUBARKIN, *Tool Engineer*—TRinity 3225

NOTE! Perpetual Inventory Maintained

▲ Mention Item NED-3328 when writing ▲

If you have a problem of Tube or Pipe PROTECTION Consult WEDGE Engineers

HEAVY PROTECTOR

LIGHT GAUGE PROTECTOR

WEDGE Engineers for years have specialized in tube and pipe protection—for plain or threaded ends, during processing, shipping and storage. The WEDGE Line includes plugs, caps and thread protectors with smooth rolled threads of all designs. We can make up specials. By preventing damage they save far more than their small cost. WEDGE Engineers, through their long experience, may be able to point the way to considerable savings for you. Why not consult them?

Write for further information.

WEDGE PROTECTORS, INC.

3973 Jennings Road Cleveland 9, Ohio

Use WEDGE Chill Rings-Thread Protectors

▲ Mention Item NED-3329 when writing ▲

EVERYTHING you want for engineering drawing reproduction . . .

THE BIG Kodagraph Autopositive Paper NEW PLUS

Provides unexcelled intermediates for quantity printing. Remarkable new photographic emulsion increases contrast in reproduction . . . gives dense black on pure white, durable, extra-thin base. Assures reproduction prints of exceptional legibility.

"Restores" old prints. Reproduces worn, faded, "unprintable" tracings. Prints from opaques and blueprints directly.

Reproduces in direct process, blueprint machines. Prints directly to positive. No negative step. Handles in ordinary roomlight. Normal photographic processing.

Stays flat. No curl. No wrinkle. No buckle. Easy to handle in processing, mailing, filing. Takes pen or pencil corrections readily.

Your local blueprint service will be glad to produce Kodagraph Autopositive intermediates and, if you wish, direct process prints or blueprints from them. Or your own reproduction department can make prints on Kodagraph Autopositive Paper.

For more information on this revolutionary new paper . . . information on the rest of the Kodagraph line . . . mail coupon at right.

EASTMAN KODAK COMPANY
Industrial Photographic Division
Rochester 4, N. Y.

Kodak

▲ Mention Item NED-3324 when writing ▲

Kodak

EVERYTHING you want for office photocopying . . .

THE BIG Kodagraph Contact Paper NEW PLUS

Brilliant reproduction. Gives rich, high contrast black-and-white negatives and positives on present equipment.

Handles easily. Has wide latitude . . . amazing uniformity. Gives operators wide safety margins. Same exposure, same development, sheet to sheet, package after package. Requires fewer trial exposures and remakes.

Resists curl. Prints stay smooth and flat. Tough, high quality Kodak-made paper assures long service in shop and office.

No new equipment needed. Nothing new to buy—except the paper . . . nothing new to learn. For full information about the new Kodagraph line—including details on Kodagraph Projection Papers—use coupon below.

EASTMAN KODAK COMPANY
Industrial Photographic Division, Rochester 4, N. Y.

MAIL COUPON FOR FREE KODAGRAPH BOOKLET

EASTMAN KODAK COMPANY
Industrial Photographic Division
Rochester 4, N. Y.

Please send me a free copy of "The Big New Plus," telling the whole story on Kodagraph Reproduction Papers. I have direct process ☐ blueprint ☐ contact printer ☐ equipment.

Name_____ (please print)

Department_____

Company_____

Street_____

City_____ State_____

83

▲ Mention Item NED-3330 when writing ▲

Fisher M-Scope "HAN-DEE" combination Leak Detector, Pipe Locator

WEIGHING less than 25 lbs., Fisher's new "Han-Dee" combination Leak Detector and Pipe Finder, will locate leaks in any pressure line. It will also locate centers, trace the courses, and measure the depth of buried pipes quickly, accurately, and economically.

Fisher "HAN-DEE" two-in-one unit only $142.50 up

FREE LITERATURE . . Write Dept. for FREE specifications, operating instructions and reasonable prices.

Fisher Research Laboratory, Inc.
Palo Alto, California

▲ Mention Item NED-3334 when writing ▲

OUT OUR WAY

SOL-SPEEDI-DRI assures you cleaner, brighter, safer floors . . . freedom from dangerous, slippery surfaces. Obtained by selective mining, laboratory-checked hourly, and processed by the most modern methods and equipment, SOL-SPEEDI-DRI is packed in special weather-proof bags to guard its quality.

WHEN YOU BUY, BE SURE IT'S SOL-SPEEDI-DRI!

SAFETY & MAINTENANCE CO., Inc., 1 Wall Street, New York 5, N.Y.
Warehouse stocks maintained in principal cities of the United States and Canada

UL SOL-SPEEDI-DRI
ABSORBENT FOR ALL LIQUIDS

▲ Mention Item NED-3335 when writing ▲

How do you clean a fluid filter without stopping or By-Passing Flow?

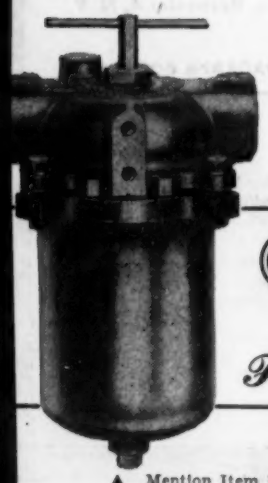
Cuno AUTO-KLEAN gives you *continuous* cleaning of full flow in a compact design no larger than usual partial-flow types.

Metal discs stop all solids larger than specified spacing* . . . turning of discs past stationary cleaner blades combs out solids. Can be cleaned periodically by manual turning of handle or continuously by motor drive. Widely used on lubricating, hydraulic, and fuel oils, water, and other industrial fluids.

FREE BULLETIN

Address Cuno Engineering Corp., 707 South Vine St., Meriden, Conn.

*Available spacings from .0035 in. to .062 in.



CUNO
Fluid Conditioning

Removes More Sizes of Solids from More Types of Fluids

▲ Mention Item NED-3336 when writing ▲

PORTABLE ELECTRIC GRINDER

Powered by 1/20-horsepower Fairchild universal motor, this portable electric grinding tool is capable of accurate work on variety of industrial operations. Sealed ball bearing at point of greatest load; self-aligning, vibration - absorbing Neoprene coupling; weather - resistant Formex wire, armature and field coils which are dipped and baked by Zanderoll process to insure impregnation to core; accuracy of alignment and baked enamel finish are features. Motor is dynamically balanced and provides smooth operation at 20,000 revolutions per minute. Tool is shaped to fit operator's hand and permits precision work without fatigue. Made by **Fairchild Industries**, 110 Main St., Burlington, Vt.

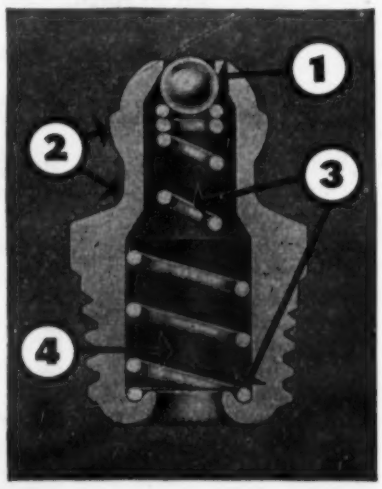
▲ Mention Item NED-3337 when writing ▲

PLIER TYPE WRENCH

Rapid adjustment and firm grip on irregular-shaped objects are features of this plier wrench which is available in 7 and 10-inch sizes. Bottom jaw becomes hinged fulcrum to provide solid grip without slipping. If desired, jaws can be made to grip at ends only. Made by **Bonney Forge & Tool Works**, Green & Meadow Sts., Allentown, Pa.

▲ Mention Item NED-3338 when writing ▲

BULLNECK GREASE FITTING



Having flush ball check in head, Kleenseal bullneck type pressure grease fitting can be wiped clean so that dirt will not be forced into fitting and bearing during lubricating operation. It can be contacted securely by all commercial hydraulic couplers of greasing equipment. Large internal diameter permits maximum flow of lubricant and requires minimum pressure to clear fitting. Ball-check spring will not compress to restrict flow of even heavy lubricant. Fittings are available in wide range of sizes and styles. Made by **Lincoln Engineering Co.**, 5703 Natural Bridge Ave., St. Louis 20, Mo.

▲ Mention Item NED-3339 when writing ▲

ON TIME! AUTOMATICALLY

- Ring Bells on a Regular Schedule—
- Start and Stop Machinery and Equipment—
- Time Your Operations for Start, Duration and Stop

WITH Montgomery Synchronous Program Clock

Montgomery Program Clocks, at new low prices, will give you dependable, automatic time-control of any 12 or 24-hour schedule of signals or electrically actuated equipment. Clocks permit signals at intervals of 2½ and 5 minutes—will control one to four separate circuits. An automatic calendar switch cuts out the circuits over week-ends if desired. Get complete information. Write for Montgomery catalog.

MONTGOMERY MANUFACTURING COMPANY
557 WEST WASHINGTON BOULEVARD CHICAGO 6, ILLINOIS
(Factory: Owensville, Indiana)

▲ Mention Item NED-3341 when writing ▲

Look at the Servis Recorder chart above—see how Down Time has "robbed" the day's production. His sly job is "boring from within"! There's only one *sure* way to rout him out of your plant: A little *Servis Recorder* "riding" on each machine (just clamp it on any moving part) brings you a chart like the one shown above—*the whole story* of machine hours for the day. Then you'll know what to do! Write for our folder —"*A Busy Plant*". The Service Recorder Co., 1375 Euclid Avenue, Cleveland 15, Ohio.

The Servis Recorder
SHOWS UP ALL IDLE TIME!

▲ Mention Item NED-3342 when writing ▲

Swing into Lower Costs in handling DRUMS, BARRELS use SABIN BARREL TRUCKS

BUILT FOR LABOR SAVING AND SAFETY

HOW IT SAVES LABOR: With this truck ONE MAN automatically picks up steel and wooden containers weighing as much as 800 pounds. No lifting. No straining. *No helpers needed.*

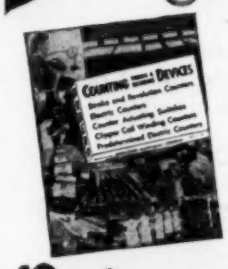
IT'S SAFER! Third wheel feature insures better balance and enables loaded truck to stand alone.

Write For Bulletin 48-A

The Sabin Machine Co.
6536 Carnegie Avenue
CLEVELAND 3, OHIO

▲ Mention Item NED-3340 when writing ▲

SMALL COUNTERS of GREAT DEPENDABILITY



Small space requirement, low-cost and tamperproof construction make SMC counters ideal for built-in applications. Many types of Operating Arms including built-in overtravel protection—Top Coming or Top Going arm action—Right or Left shaft extension of any desired length. Speeds to 600 CPM. Non-reset. Send application details for sample.

Production Instrument Company
700-12 W. Jackson Blvd., Chicago 6, Ill.
Manufacturers of Counting, Timing and Recording Devices

▲ Mention Item NED-3343 when writing ▲

THESE FEATURES MAKE

DART UNIONS OUTSTANDING

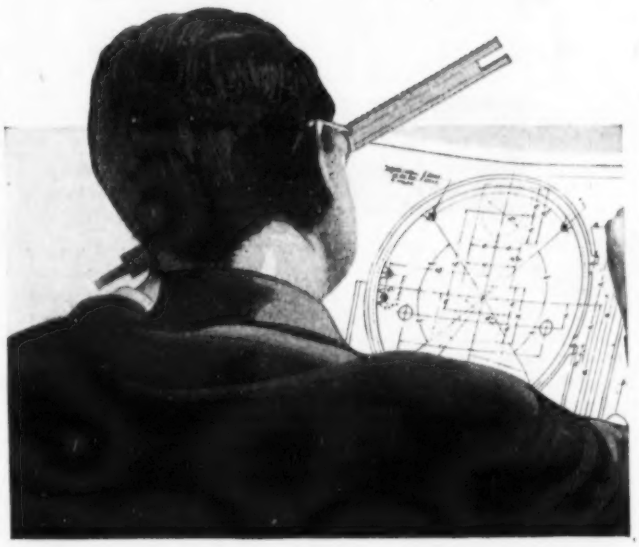
Your supplier will gladly show you these outstanding money saving features.

E. M. DART MANUFACTURING CO.
PROVIDENCE 5, RHODE ISLAND

Mention Item NED-3344 when writing

DRIPRINT
TRADE MARK

The Better Dry-Developed Paper



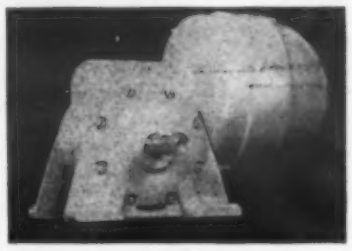
Few fields have shown such steady progress as the chemistry of print-making. Not that recent years have revealed any revolutionary processes. They have not. But all papers and methods have been improved to a marked degree. If you are a user of direct positive prints produced by ammonia vapor development, or are interested in adopting this process, be sure to try Dietzgen's DriPrint, the *better* dry-developed paper, and see the difference. May be used with any make of high-speed printing and developing equipment. Superior contrast, firm full-bodied lines with clear white backgrounds . . . reliable uniformity . . . time-saving speed . . . these desirable features have made Dietzgen's DriPrint the specified choice of thousands of discriminating print users. A better paper at no extra cost. Available in cut sheets or rolls. Ask your Dietzgen dealer or nearest Dietzgen office for a demonstration.

EUGENE DIETZGEN CO.
Chicago • New York • San Francisco • New Orleans
Pittsburgh • Los Angeles • Philadelphia
Washington • Milwaukee
Dealers in All Principal Cities

DIETZGEN
DRAFTING, SURVEYING & PRINT-MAKING MATERIALS, INSTRUMENTS & EQUIPMENT

Mention Item NED-3345 when writing

MOTORIZED SPEED REDUCER



Combining Electra-Motor and right-angle, single reduction, worm gear type speed reducer, this lightweight gear-motor, available in wide range of speeds, can be operated at almost any desired angle. Two models, series 400 foot mounted and series 500 ring mounted, are available for operation on 1, 2 or 3-phase alternating current and in ¼, ⅓, ½ and ¾-horsepower sizes. All are of general purpose, continuous-duty type, with antifriction bearings.

Motor can be assembled in any one of four positions, permitting unit to be operated at any desired angle. In ring mounted model, positive seal prevents gear oil from leaking into mixing chambers or other equipment. Made by **Electra Motors, Inc.**, 1108 N. Lemon St., Anaheim, Calif.

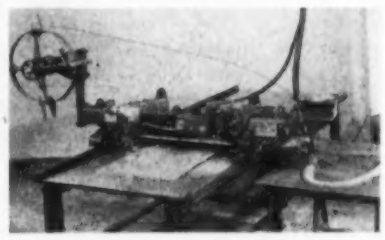
Mention Item NED-3346 when writing

SKID HANDLING HAND TRUCK

Designed to handle skids ranging from 6 to 18 inches high, Platform Worksaver battery powered hand truck has full 13-inch lift. This modified model provides for efficient handling of different sizes and types of skids, skid-racks and skid-bins. Truck has capacity of 6000 pounds and features short turning radius, light weight, small size and maneuverability. Made by **Yale & Towne Mfg. Co.**, 4537 Tacony St., Philadelphia 24, Pa.

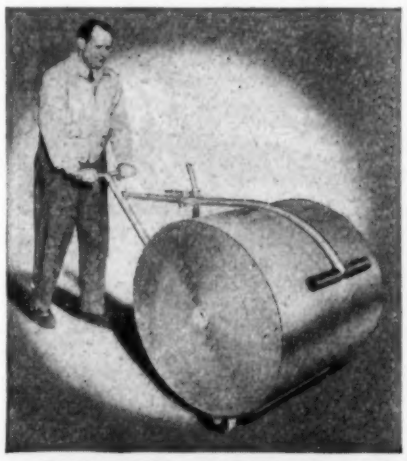
Mention Item NED-3347 when writing

SHAPE-WELDING MACHINE



Capable of producing welds to any outline, model WM-6 Unimelt shape-welding machine utilizes submerged-melt welding process. Carriage of type used in oxy-acetylene shape-cutting carries and guides welding head, and outline is determined by strip templet. Type U welding head illustrated has maximum current capacity of 2000 amperes and can weld material ranging from 18-gage to 1¼-inch plate in single pass. Heavier parts can be welded by using multiple passes. Machine operates over area 34 inches wide and 80 inches long, and when sections are added to tracing table, greater lengths can be accommodated. Welding speed is adjusted by stepless speed control on tracing machine. Standard or high speed tracing heads make possible welding speeds of from 4 to 40 or 11 to 100 inches per minute respectively. Made by **Linde Air Products Co.**, 30 E. 42nd St., New York 17, N. Y.

Mention Item NED-3348 when writing



THE NEW IRONBOUND RolTruk LIFTS GRIPS & CARRIES PAPER ROLLS, KEGS, REELS

● The RolTruk easily lifts and moves heavy cylindrical objects, yet is non-complicated in design. One of the features is the hold-down arm which securely grasps the roll in a vise-like grip and finger-tip release catch must be manually disengaged before the roll can be released. Thus accidents are prevented and damage to product is eliminated. The RolTruk can be adapted to handle many items. If you have a cylindrical product write the Ironbound engineering department. Recommendations made without obligation.

IRONBOUND
BOX & LUMBER COMPANY
Materials Handling Division
55 HOFFMAN PLACE • HILLSIDE, N. J.

Ironbound

SEMI-LIVE SKIDS
SKIDS • DOLLIES
FLOOR TRUCKS

Mention Item NED-3349 when writing

Electro-AIRMAT

serves you better 4 ways

Modern AAF Air Filter Combines Best Features of Both Electronic and Mechanical Filtration

1. Easy, Positive Maintenance—Airmat paper serves as filtering media. When dust loaded, it is discarded and replaced quickly with clean paper. Eliminates sludge removal and cleaning of collector plates.

2. Simplified Installation — No water connections, sewer drains or water-tight base required.

3. High Operating Efficiency—85% to 90% cleaning efficiency at normal precipitator velocities.

4. Stops Dust Infiltration—Functions as mechanical filter when system is shut down to protect against dust infiltration due to "stack effect".

Write for Electro-Airmat Bulletin No. 253.

AMERICAN AIR FILTER CO., INC.
391 Central Ave., Louisville 8, Ky.
In Canada: Darling Bros. Ltd., Montreal, P. Q.

AAF

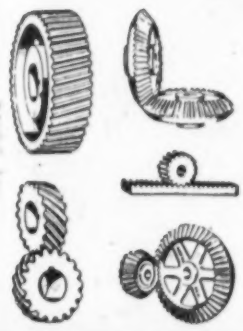
ELECTRO-AIRMAT
ELECTRONIC AIR FILTER

Mention Item NED-3350 when writing

THE ANSWER IS EVERYTHING

Large Plant capacity—Last word in Machinery—Skilled Craftsmen with the "know how"—just EVERYTHING that makes for product perfection—that's what we offer

"Industrial"
CUT GEARS
SPROCKETS • RACKS



We're fully tooled for cutting Spur, Bevel, Mitre, Worm, Internal, Spiral, Angular and Helical Gears, including Splines, Machine Racks, Roller and Silent Chain Sprockets.

When long life is a factor and smooth, quiet operation desirable, "Industrial" will give its everything for your complete satisfaction.

Make it a Habit to Send Us Your Orders!

INDUSTRIAL GEAR MFG. CO.
4541 VAN BUREN STREET CHICAGO 24, ILLINOIS

Mention Item NED-3351 when writing

FILT-R-STIL* Demineralizers bring A BIG DROP IN YOUR COSTS

This is TAP WATER. It's cheap but the solids in it may cause costly production troubles.

This is DISTILLED WATER. It's pure, but expensive.

This is DEMINERALIZED WATER. It's chemically equal or superior to distilled water, yet costs only a small fraction as much. Utilizing a new, low-cost, no-heat method, FILT-R-STIL Demineralizers produce water chemically equal to, or better than distilled water at a possible 98% reduction in cost . . . *And* — they can be operated to deliver water containing a maximum of 10 ppm. of ionized solids — or a fraction of one part per million!

Investigate Cyanamid's low-cost FILT-R-STIL Demineralizers.

ION EXCHANGE PRODUCTS DEPT.
FILT-R-STIL* Demineralizers
IONAC* Ion Exchange Resins
*Reg. U. S. Pat. Off.
AMERICAN CYANAMID COMPANY

N.E.D. 8

30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

☐ *Send 26-page booklet, "FILT-R-STIL Demineralizers."*
☐ *Send data on low-cost Silica-free water.*
☐ *Send description of new film on water demineralization.*

Name.....
Company.....
Address.....
City and State.....

Mention Item NED-3352 when writing

NEW MEAD INDUSTRIAL
AIR POWER
CATALOG Ready!

Full of Suggestions for FASTER, CHEAPER PRODUCTION!

Illustrates, describes Air Cylinders, Valves, air operated Presses, Vises, Chucks, Hammers, Deal Feeds, Drill Press Feeds, Work Feeders, Timers, semi-automatic combinations, etc.

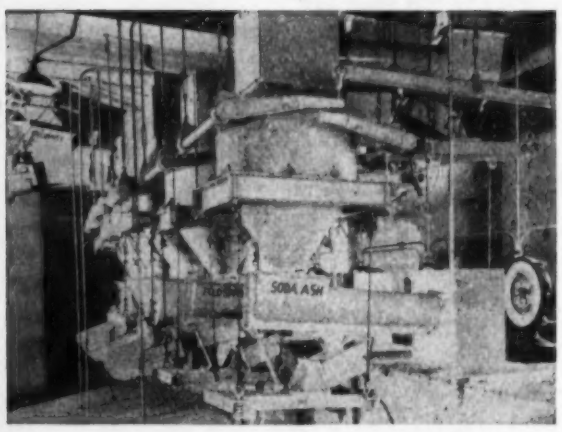
Write for Complete Catalog!

MEAD
SPECIALTIES COMPANY

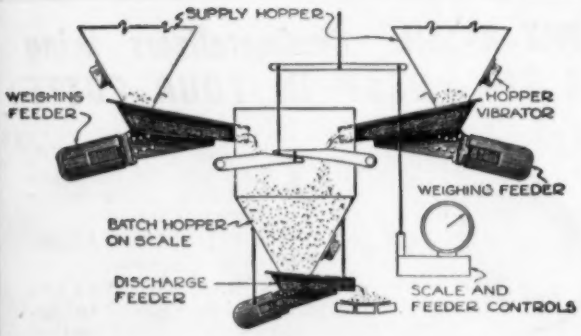
4114 No. Knox Ave., Dept. NA-58, Chicago 41, Ill.

Mention Item NED-3353 when writing

SYNTRON
"Automatic"
BATCH WEIGHING



Provides ACCURACY OF BATCH
SIMPLE CONTROL
SELECTIVITY



Vibrators on bins and hoppers keep the materials free-flowing. The vibratory feeders automatically filling scale hoppers to exact weight and discharging onto secondary vibratory feeders, smoothly emptying each accurately weighed batch into mixers, blenders, belt conveyors, etc.

Any one, or a combination of any number of materials may be batched, accurately and automatically, at the same time.

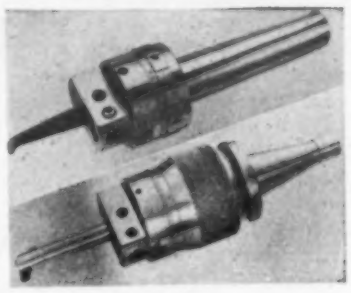
Write for catalog information

SYNTRON CO.

405 Lexington Homer City, Pa.

Mention Item NED-3354 when writing

BORING-FACING HEADS

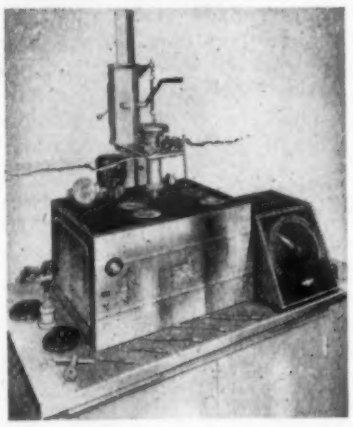


In addition to performing precise boring operations, No. 40 E-Z Set boring-facing head, bottom illustration, will power face work. Operator holds knurled sleeve with hand while machine continues to drive tool. This causes tool to be power fed across face of work. This same collar is used to set boring tool to any diameter within capacity of tool accurate to 0.0001-inch. Standard Morse shank is furnished, but National Machine Tool Builders, Van Norman, Moore, Bridgeport, Gorton, etc. shanks with tang, drawbar thread or camlocks can be supplied. Three sizes have boring capacity range of ½ to 7 inches, ⅞ to 15 inches and 1⅛ to 20 inches. Maximum boring bar capacity of these heads is ½, 1 and 1½ inches, with travel of ¾, 1⅝ and 2¼ inches respectively.

Series 30 E-Z Set boring head shown at top of illustration has same boring capacity as above model but is used for boring only. It features same micrometer type dial setting and accuracy. Wide capacity range is possible through use of three-position location of boring bar in head. Features of both tools include compactness, ease of adjustment, easily read adjusting dials and interchangeable shanks. They can be used on any jig bore, boring mill, drill press, automatic or similar type machine. Made by **Maxwell Co.**, 390 Broadway, Bedford, O.

Mention Item NED-3355 when writing

ROTATIONAL VISCOMETER



High speed, wide range Interchemical rotational viscometer measures flow properties of paints, printing inks, plastics, adhesives, food products and many industrial products. It consists essentially of rotating cup containing sample of material to be measured and a stationary bob immersed in it. When cup is rotated at predetermined speeds, viscous drag is imposed on coiled spring supporting bob and is measured. Speed of rotation can be varied from 10 to 400 revolutions per minute in steps of 10 revolutions per minute. Forty changes of speed per minute can be effected. Temperature control from 20 to 100 C is provided by adjusting constant temperature water bath which assures sensitivity to 0.1 C. Made by **Precision Scientific Co.**, 3735 W. Cortland St., Chicago 47, Ill.

Mention Item NED-3356 when writing

DO YOU KNOW?

■ ADDED directly to paint in up to 1 to 1 ratio, Paintmor increases amount of paint, makes it easy to apply, and affords good consistency and elasticity according to the manufacturer. Paint does not separate or dry out while standing, and additive can be used with all paint in any color. Made by Kay-Tite Co., West Orange, N. J.

Mention Item NED-3357 when writing

Brooks
LOAD LUGGER
Saves $5000 annually.....

"Through the use of the Load Lugger detachable truck bodies and one hoisting unit installed on one of our trucks we have eliminated re-loading into high truck bodies and can conservatively estimate our savings at $5,000 annually in labor alone". So writes one of the many hundreds of plant owners and engineers using this versatile materials handling system. Brooks Load Lugger is superior because it not only picks up or dumps fully loaded truck bodies in seconds but leaves flat truck bed free for general hauling purposes when needed. One-man operated, easily installed on any standard truck chassis. Body capacities — 1 to 10 cu. yds. Special bodies engineered to facilitate your particular materials handling problem. Write for free catalog showing applications.

Distributors in all Principal Cities

BROOKS EQUIPMENT & MFG. CO.

701 DAVENPORT RD., KNOXVILLE, TENN.

Mention Item NED-3358 when writing

Aeroquip
SELF-SEALING COUPLINGS

With the installation of Aeroquip Self-Sealing Couplings, fluid-carrying lines can be disconnected without loss of liquid or inclusion of air upon reconnection.

Aeroquip Self-Sealing Couplings are suitable for lines carrying hydraulic fluids, oils, fuels, coolants or refrigeration gases. Write for further details.

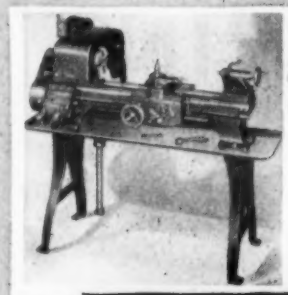
Aeroquip for better performance, maintenance and service.

AEROQUIP CORPORATION JACKSON, MICHIGAN

303 WAREHAM BLDG., HAGERSTOWN, MD.
803 PENCE BLDG., MINNEAPOLIS 3
327 M & M BUILDING, HOUSTON 2
1709 W. 8TH ST., LOS ANGELES 14
IN CANADA: 72-74 STAFFORD STREET, TORONTO, CANADA

AEROQUIP PRODUCTS ARE MADE UNDER ONE OR MORE U. S. PATS. RE: 21,984; 2,200,286; 2,219,216; 2,391,022; 2,311,239; 2,203,922; 2,219,286; 2,254,997; 2,316,570; 2,371,971; 2,400,686; 2,226,702; 2,255,593; 2,286,211; 2,300,493; 2,375,614; 2,428,150

Mention Item NED-3359 when writing



Logan
A NAME TO REMEMBER WHEN YOU THINK OF BETTER LATHES AND SHAPERS

No. 820 Quick Change Gear Lathe

Logan Lathe prices start at $159.50

Adaptability

Another Reason Why LOGAN Lathes Serve Many Industries

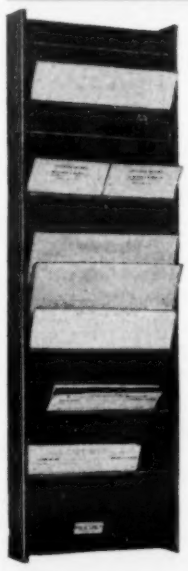
• The Logan Lathe's reputation for adaptability has been earned in many industries, in exacting tool room work, and on a variety of production operations. The Logan ball bearing spindle, for example, has a speed range of 30 to 1450 rpm. High speed carbide cutting tools can be used to full advantage, yet the lathe is equally adaptable to slow speed work. The wider range of Logan spindle speeds assures the most effective rpm for light or heavy cuts, as well as for machining widely different materials such as steels, cast iron, non-ferrous metals, and plastics. Rugged, precise construction throughout, plus Logan advanced design features assure lasting accuracy. A complete line of lathe accessories and attachments further increases the adaptability of Logan Lathes. Write for full information. T-3

SPECIFICATIONS COMMON TO ALL LOGAN LATHES . . . swing over bed, 10½" . . . bed length, 43⅛" . . . size of hole through spindle, 25/32" . . . spindle nose diameter and threads per inch, 1½"—8 . . . 12 spindle speeds, 30 to 1450 rpm . . . motor, ½ hp, 1750 rpm . . . ball bearing spindle mounting . . . drum type reversing motor switch and cord . . . precision-ground ways, 2 V-ways and 2 flat ways.

DISTRICT OFFICES: Woolworth Bldg. New York 7, N. Y. CO 7-8024 | 550 W. Washington Blvd. Chicago 6, Illinois Central 1246 | 2516 N. Ontario St. Burbank, Calif. Charleston 8-1024 | 700 Commerce St. Dallas 2, Texas Central 4075

LOGAN ENGINEERING CO. CHICAGO 30, ILLINOIS

Mention Item NED-3360 when writing



PUT THIS "ALL STEEL"
UTILITY WALL FILE
TO WORK FOR YOU

One or more of these Files will SAVE TIME wherever you have an accumulation of forms, envelopes, pads, etc., that have to be leaved through frequently to locate a particular one. Each item in view and within easy reach for quick selection. Keeps desk clear for more efficient operation.

USE IT FOR—Job Envelopes, Work Tickets, Shipping Forms, Maintenance Orders, Stationery, etc., etc.

Each Unit has 15 Pockets, 11⅝ x 5⅝ x ¾", spaced 2¼" apart.

Wall Space 12 x 40", Projection 4".

Made of 24 ga. Steel, Spot Weld Construction.

Dark Green Lacquer Finish.

PRICE: 1 to 3 Units..... $9.75 per Unit
4 or more Units..... 9.00 per Unit

DESK MODEL WALL FILE

Same construction as above but only 22½" high. Each Unit has 8 pockets. For use back of a desk or table, see illustration below.

PRICE: 1 to 3 Units..... $7.00 per Unit
4 or more Units..... 6.50 per Unit

Above Prices are f.o.b. Cleveland, Ohio. Full Credit if not completely satisfied and Files are returned within 10 days.

Order direct from

BETTER METAL PRODUCTS CO.
4495 West 210th Street
CLEVELAND 16, OHIO

Write for Circular on New "All Steel" Key Cabinet

Mention Item NED-3361 when writing

STOP DUSTS

Unit type *ductless* DUSTKOPS for small or big dust sources can usually be installed within twenty minutes. Dustkops cost less to purchase; have cyclone separator and second stage spun glass (non-inflammable) filter.

The Model 420 at right. Model 1150 below.

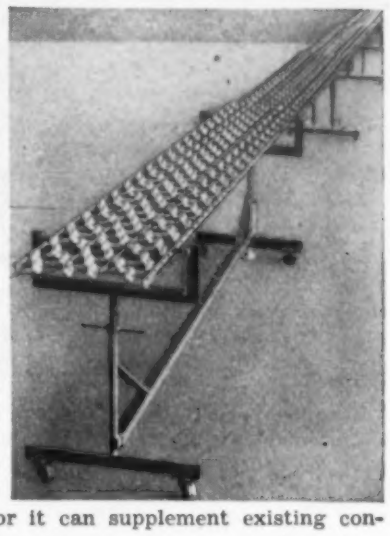
Shipment: Prompt!

AGET-DETROIT COMPANY
201 Main at Washington
ANN ARBOR, MICHIGAN

Send For Catalog A-415 Now.

Mention Item NED-3362 when writing

TELESCOPIC CONVEYOR

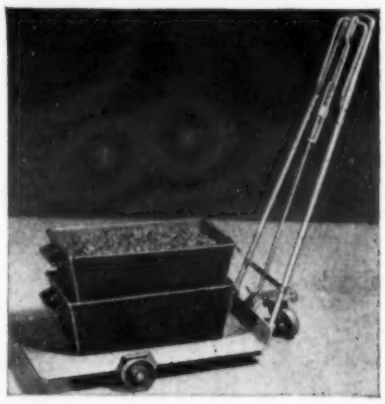


Composed of from two to four 10-foot sections, this telescopic conveyor can be adjusted quickly in length, height and pitch to suit work requirements. Particularly suitable for loading and unloading trucks and freight cars, unit can be wheeled inside vehicle and extended or compressed as work progresses. When set up for permanent operation, it can be combined with other telescopic conveyors or it can supplement existing conveyor systems.

The several sections of conveyor slide in and out on channel steel rails in step-down arrangement. Three-inch casters afford portability. Casters lock in position with pressure brake lock. Finger-tip jack screw adjustment on loading end adjusts conveyor for height and pitch, and turn-screws adjust telescoping sections. Made by **Wilkie Co.**, 5520 Arch St., Philadelphia, Pa.

Mention Item NED-3365 when writing

ALL-PURPOSE SHOP TRUCK



Improved model Easy-Tote all-purpose hand trucks now incorporate hook length adjustment which provides them with increased capacity in handling variety of small interdepartmental loads. By setting hook to required length, load can be engaged, cranked onto base plate and automatically deposited over axle at which point hook falls free. From this balanced position, raising of handle slides load smoothly to floor. One worker can handle up to 400-pound loads with safety. Three-wheel arrangement with swivel caster in rear permits these trucks to pivot in extremely limited areas and to transport loads in narrow aisles and under benches. Made by **Easy-Tote Products Co.**, P.O. Box 86, Buffalo 17, N. Y.

Mention Item NED-3366 when writing

DO YOU KNOW?

■ CENTRIFUGALLY cast Meehanite iron castings now being produced combine physical properties resulting from centrifugal process with inherent characteristics of Meehanite metals. Castings of virtually any essentially symmetrical or angular shape, regardless of outer surface contour, can be produced by this method. Service offered by Shenango-Penn Mold Co., Dover, O.

Mention Item NED-3367 when writing

NEW electric eel sewer & drain cleaning machines...

guarantees safety to operator because of Stationary Outer Sheath

- Improved—25% More Power
- Full Electric Reverse for Rapid Withdrawal
- Increased Speed Through Greater R.P.M.
- Lighter due to New Aluminum Frame
- Rotating Inner Cables
- Lines 1¼" to 8"
- Runs up to 200 ft.
- Over 4,000 in use
- 8 years in production
- Each tool Engineered for particular purpose

OHIO TOOL & ENGINEERING CO.
SPRINGFIELD • OHIO

Mention Item NED-3363 when writing

SPEED PRODUCTION SAFELY

YOUR WORKERS INJURIES HURT YOU

When weight must be moved . . .
send one man and Portelvator

Raises, lowers, transports, levels and supports overhanging work. Forms a work bench when and where you need it. May be worked at from all sides. One man can safely lift and carry loads usually requiring the combined strength of four.

Three table surfaces. Four point support. Fast lift and slow lift mechanism. Self locking at any height. *Will not tip or slip.* Positive floor lock.

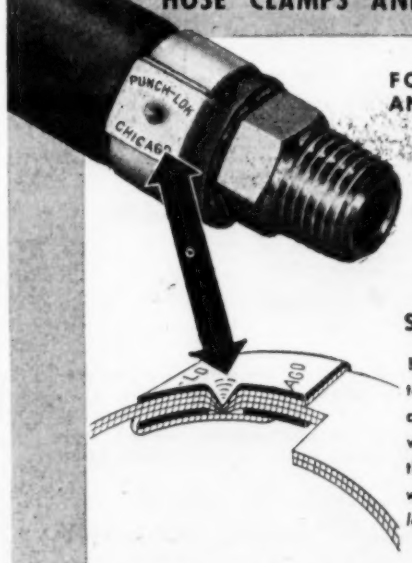
Standard Model capacities 1,000 to 5,000 pounds. Special models designed and built on order.

WRITE FOR BULLETIN P-47

THE Hamilton TOOL COMPANY
SUPER SENSITIVE DRILLING MACHINES · TAPPING MACHINES · PORTELVATORS
901 HANOVER STREET • HAMILTON • OHIO • U • S • A

Mention Item NED-3364 when writing

PUNCH-LOK
HOSE CLAMPS AND FITTINGS



FOR PRODUCTION AND MAINTENANCE

LOOK . . . its Punch-locked for Safety

SECTIONAL VIEW

Each of double bands interwoven into each other and into opening provided in under side of the lok for safety. *Double wrapped and punch-locked.*

Write for catalog and name of nearest supplier.
In Canada—Acme Steel Co. of Canada, Ltd.

PUNCH-LOK COMPANY
Department S • 321 North Justine Street, Chicago 7, Ill.

Mention Item NED-3368 when writing

A Small Magnet for a **BIG JOB!**

New Dings Alnico Perma-Plate Magnet

For Removal of Tramp Iron

Lightest . . . Most Powerful . . . Least Expensive Alnico Magnet Available!

Highest grade Alnico used—*for maximum power!* Magnetic permanence guaranteed for life of installation! Non-electric . . . no operating or maintenance expense . . . simple to install . . . easy to clean. Removes tramp iron from all dry products. Simple, trouble-free design. Standard or special models to fit any system. Complete, ready for installation. Quick delivery. Patent Pending. *Write for new bulletin.*

In Chutes, Ducts, Pipes Over Belt Conveyors

Over Belt Conveyors

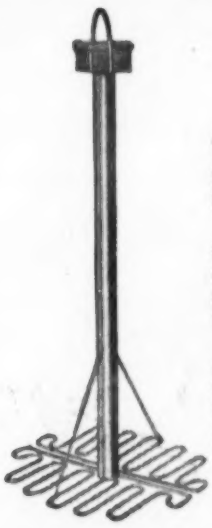
DINGS MAGNETIC SEPARATOR CO.
4758 McGeogh Ave., Milwaukee 14, Wis.

Complete Line of Permanent and Electro Magnets

Dings "HIGH INTENSITY"

Since 1899

Mention Item NED-3369 when writing



***A New* ELECTRIC IMMERSION HEATER**
for melting fats, greases, waxes and similar compounds

Suspended by the handle at the top, the Heater gradually sinks into the mass as it liquifies.

At top is explosion-proof terminal box—or, if preferred, a standard knock-out box.
110-125 or 230-240 Volts 60 Cycles AC

Made in any height, diameter, power or shape of heating element, to fit the job to be done and the kind of material to be melted.

VULCAN ELECTRIC COMPANY
DANVERS 7, MASS.

Makers of Electric Soldering Tools, Solder Pots and of a wide variety of Heating Elements for assembly into manufacturer's own products; and of Heating Specialties that use Electricity.

Mention Item NED-3370 when writing

MAKES BASEMENT DRY!

Leaks in concrete walls can be stopped quickly with FLEXTITE. Actually seals against water pressure. Converts wet basements into dry useful space. Efficient as a plaster coat for sealing off water and dampness. Used in elevator pits, tunnels, dams, tanks, retaining walls. In reconstruction work, broken pillars and beams can be quickly reshaped, with FLEXTITE.

Write For Details of **FREE TRIAL OFFER**

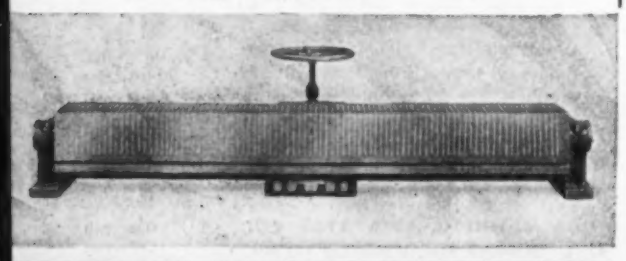
FLEXTITE

FLEXROCK COMPANY
3603-F Filbert St. Philadelphia 4, Pa.
Canadian Office: 21 King St., E. Toronto, Ont.
Please send me complete FLEXTITE information and details of TRIAL ORDER PLAN—no obligation.
Name .....
Company .....
Address .....

Mention Item NED-3371 when writing

Hold Everything! with *Walker Chucks*

A recent development which proves the versatility of Walker production—Walker Apex Swivel Chuck, 10" x 10" x 90"—and other sizes—gives magnetic uniformity over the APEX . . . fine pole division . . . absolute balance. This chuck is positively abuse-proof and water-proof. It is an outstanding advance in the magnetic principle applied to what heretofore was thought impossible.



O. S. WALKER CO. Inc.
WORCESTER 6, MASSACHUSETTS
Original Designers and Builders of Magnetic Chucks

▲ Mention Item NED-3373 when writing ▲

DRAVO *Counterflo* HEATERS *AVAILABLE IMMEDIATELY!*

NOW—Dravo *Counterflo* Heaters can be shipped promptly from stock.

NOW—The unsurpassed leader for open-space heating is available immediately.

AND—Immediate availability means that you can take advantage of the summer air-circulating feature right now. You simply flick the selector switch and the large fans instantly go to work to help maintain comfortable working conditions for employees. Even more important, you'll be prepared in advance for next heating season.

In thousands of industrial and commercial establishments you'll find Dravo *Counterflo* Heaters establishing records for efficiency and economy. They'll prove their worth to you, too, and they can be

SHIPPED IMMEDIATELY FROM STOCK
for Winter Heating and Summer Ventilating.

For quick action call the Dravo Representative listed under "HEATERS" in your classified telephone directory, or contact Heating Section, Dravo Corporation, Pittsburgh 22, Pa.

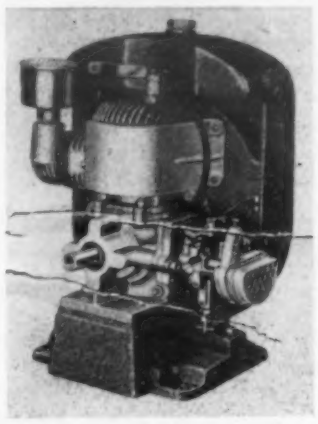
Dravo also manufactures the DRAVO CRANE CAB COOLER for air conditioning hot-metal crane cabs.

DRAVO CORPORATION
PITTSBURGH • CLEVELAND • PHILADELPHIA • DETROIT
NEW YORK • CHICAGO • ATLANTA • BOSTON
Sales Representatives in Principal Cities

DRAVO

▲ Mention Item NED-3374 when writing ▲

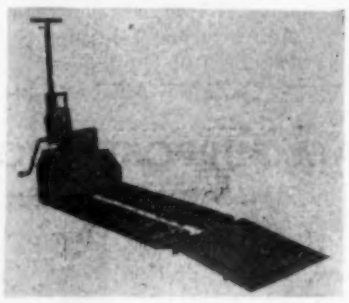
SMALL GASOLINE ENGINE



Two - horsepower, air-cooled, two-cycle model HE-842 Power-Pak gasoline engine is constructed around horizontal crankshaft with ¾-inch diameter power take-off end, and unit is adaptable for powering pumps, generators, utility tractors, scooters and flexible shaft equipment. It is equipped with hot-spark magneto, precision built carburetor and automatic governor which insures easy starting and economical operation. Counterbalanced crankshaft is set up in ball and needle bearings. Crankpin end of forged steel connecting rod is also mounted in needle bearings. Made by **Propulsion Engine Corp.**, Seventh & White Eagle Rd., Kansas City 15, Kans.

▲ Mention Item NED-3375 when writing ▲

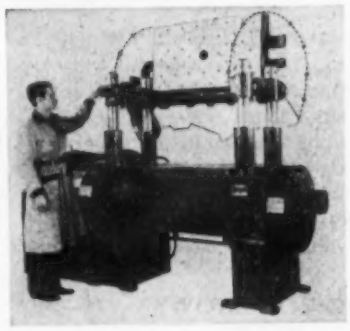
HYDRAULIC PALLET TRUCK



Fitted with hand winch and removable hinged ramp, this standard pallet type hydraulic lift truck is capable of handling cases weighing up to 6000 pounds. Winch is equipped with 15 feet of steel cable which is used to draw load up ramp and onto 3¼-inch high truck platform. In storing cases, truck is elevated 4 inches, blocks are placed under overhanging sides of cases, and truck lowers cases onto blocks. When cases are moved again, truck slips under them without use of ramp or winch. Made by **LYON-Raymond Corp.**, 4719 Madison St., Greene, N. Y.

▲ Mention Item NED-3376 when writing ▲

LARGE DIE TRYOUT PRESS



Die tryout type press having 100-ton capacity operates at 60 strokes per minute to duplicate production conditions. Head lifts out of position by electric control and inverts so that both members of die are readily accessible for finishing work without removing die from press. Positive relocation of die to original position is assured by locating pins. Stroke length is 6 inches, bolster measures 26 x 65 inches, maximum shut height is 16 inches, and minimum shut height is 12 inches. Made by **Alpha Tool Works**, 9281 Freeland Ave., Detroit 28, Mich.

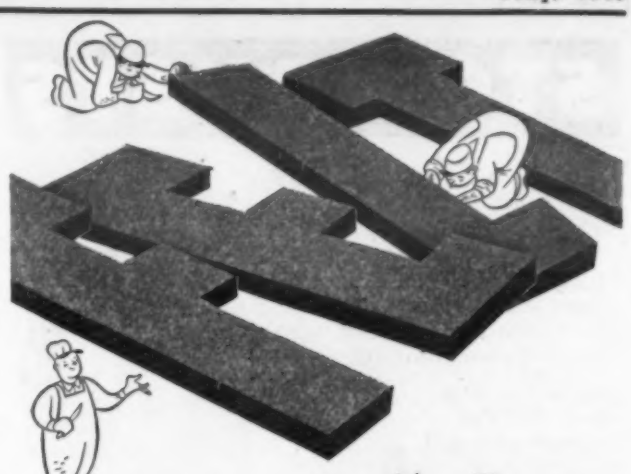
▲ Mention Item NED-3377 when writing ▲

Simply set the quantity of the exact run required on the predetermined wheels. No overruns . . . no underruns . . . no guesswork!
High production costs put double emphasis on this foolproof method that will save time and money in your plant.
Send for Bulletin No. 100 — your reference book of over 300 models of standard Productimeters.

DURANT MANUFACTURING COMPANY
1922 N. Buffum Street, Milwaukee 1, Wis. — 122 Orange Street, Providence 3, R. I.
Representatives In Principal Cities

PRODUCTIMETERS
SINCE 1879 — *Speedometers* OF INDUSTRY

▲ Mention Item NED-3378 when writing ▲



. . . cuts with a Clean, Non-Fray Edge

Felt can be processed from the softness of down to the hardness of seasoned board — and to any of the wide range of consistencies in between.
You can tool felt in many ways . . . die-cut, punch, skive, chisel, turn or scarf . . . and you can obtain a high degree of clean edging, close tolerance.
Felt retains resiliency through long, tough usage. Its breaking point is high.
Felt is not injured by normal atmospheric conditions . . . sun, moisture, heat, cold . . . nor by exposure to gas and oil.
When ordering, remember that cut felt parts as supplied by The Felters Company are uniformly and accurately cut to your *exact* size and shape specifications — thus, they are usually ready for assembly after a single, elementary operation. This means a substantial saving in time and money for you.

Felters Precision Cut Felt Parts Manual makes ordering easy, sure. Ask for your copy today—then keep it ready at hand.

THE FELTERS CO.
210-M SOUTH STREET, BOSTON 11, MASS.

▲ Mention Item NED-3379 when writing ▲

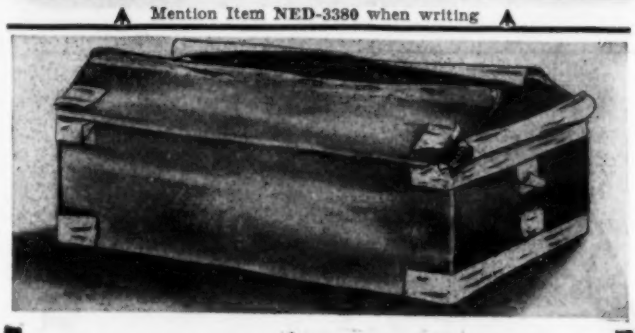
Everything! IN INDUSTRIAL COMBUSTION EQUIPMENT

One Item or a Complete System

With competitive days ahead you will want your heating processes at top efficiency, with lowest operating costs. Correct engineering and installation, plus continued servicing by *COMBUSTION SYSTEMS*, make this possible — a complete service from planning to installation and maintenance.
Whether it's a single item you need, or a complete firing system, both are available from *COMBUSTION SYSTEMS*—headquarters of industrial combustion equipment: *NATIONAL* gas burners, high- and low-pressure mixers, air heaters, immersion heaters, varnish fires, valves and controls.
Save your time and trouble — get everything from a single source.

COMBUSTION SYSTEMS
DIVISION OF VAPOFIER CORP.
10322 SOUTH THROOP ST., CHICAGO 43, ILLINOIS

▲ Mention Item NED-3380 when writing ▲



DON'T LET THIS HAPPEN *To Your Shipments!*

● A few INTERNATIONAL STAPLES could have prevented this! (8 staples to be exact.) THE INTERNATIONAL RETRACTABLE ANVIL STAPLE MACHINE closes filled cartons *from the outside, tops and bottoms simultaneously* if desired! Cartons stapled the INTERNATIONAL way actually exceed the requirements of the Consolidated Freight Classification.

What does this mean to you? A neat, durable package closure and savings in packing costs ranging up to 50%.

Write for catalog and reprint entitled, "New Layout Returns First Cost in Three Months."

In business since 1938, INTERNATIONAL distributors are everywhere!

INTERNATIONAL STAPLE & MACHINE CO.
HAVERTOWN 2, PENNA.

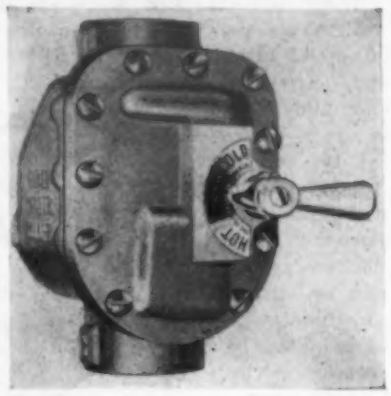
▲ Mention Item NED-3381 when writing ▲

SPRING PRESSES

THE TAYLOR & FENN CO. HARTFORD 1, CONN.

▲ Mention Item NED-3382 when writing ▲

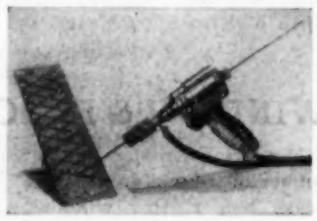
CONTROLLED MIXING VALVE



Providing adjustment control to deliver domestic water at any temperature from 120 to 170 F, this mixing valve decreases danger of scalding and increases supply of usable hot water from any tankless heater. When used in conjunction with 30-gallon storage tank, valve draws unheated water and mixes it with heated water to deliver approximately 50 gallons of usable 135 F water. Valve is easily installed, and entire mechanism is accessible for service without disconnecting piping. It is available in ½, ¾ and 1-inch National Pipe Thread sizes. Made by **Dole Valve Co.**, 1933 Carroll Ave., Chicago 12, Ill.

▲ Mention Item NED-3385 when writing ▲

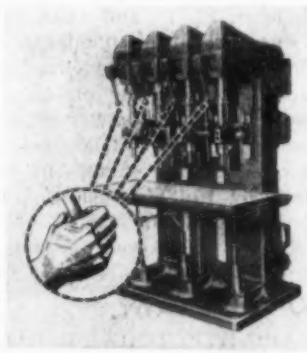
VIBRATING ELECTRODE HOLDER



By depositing metal to form 1/8-inch wide by 1/16-inch high beads, this Ruf-Tred vibrating electrode holder forms pattern of raised metal to provide slipproof surface on steel or iron floors, on steps and other places. Intermittent arcing of hard-metal electrode fuses molten droplets to base. Tool is moved along about 5 feet per minute and can trace any pattern desired. It will operate on any alternating or direct current welding machine. Made by **Metallizing Engineering Co.**, Safety Products Div., 38-14 30th St., Long Island City 1, N. Y.

▲ Mention Item NED-3386 when writing ▲

DRILLING MACHINE



Four-spindle model No. BMA-6 drilling machine features six speed changes and provides versatility for various drilling operations. Illustrated machine has 12-inch overhang. First spindle is Avey-matic feed, second spindle is plain power feed, third spindle is hand feed and fourth spindle is designed for tapping.

Speed changes are made easily and quickly through selective and sliding gears in manner similar to shifting gears in an automobile. Single lever on front of machine is within easy reach of operator. Each spindle is individually motor driven by standard frame, constant speed motor. Models Nos. 2BMA-6 and 3BMA-6 have capacities in cast iron of ⅞ and 1¼ inches respectively. Made by **Avey Drilling Machine Co.**, Dept. 1, 23 E. Third St., Cincinnati 1, O.

▲ Mention Item NED-3387 when writing ▲

Announcing the new PHILADELPHIA-RELIANCE GEARMOTOR

Now, after years of design, development and testing, the team o Philadelphia Gear Works and Reliance Electric—a famous gear specialist since 1892 and a famous motor specialist since 1905—is proud to announce this new GearMotoR. From the very start, this project has been guided by repeated checks of all the essentials regarded by industry as desirable in a gearmotor.

Wherever the use of a gearmotor to reduce operating speed is practical, there are advantages in this new Philadelphia-Reliance GearMotoR which are vitally important to your operations. That is why it will pay you to write today for complete details.

RELIANCE ELECTRIC AND ENGINEERING COMPANY
1082 Ivanhoe Road • Cleveland 10, Ohio
PHILADELPHIA GEAR WORKS, INCORPORATED
Erie Ave. and G St. • Philadelphia 34, Pa.

Philadelphia GEAR WORKS INCORPORATED | RELIANCE ELECTRIC AND ENGINEERING CO.

▲ Mention Item NED-3389 when writing ▲

A FEW EXCLUSIVE FEATURES:

SHORTER OVERALL LENGTH. Operates in narrower aisles, etc.

LOWER LINE OF GRAVITY for battery and motor housing.

NATURAL EASY GRIP ROLLER TYPE CONTROL HANDLE for forward and reverse movement.

PUSH BUTTONS in ends of handle control hydraulic lift.

INTERCHANGEABLE MOTOR UNIT.

GEAR AND CHAIN DRIVE. ALL-STEEL WELDED CONSTRUCTION.

MOTO-TRUC

Originators of MOTORIZED *hand* LIFT TRUCKS

LOW TYPES • HI-LIFT TYPES

Write for BULLETIN 47-A

The MOTO-TRUC Co.
1953 E. 59th Street
CLEVELAND 3, OHIO

▲ Mention Item NED-3383 when writing ▲

OHMITE

HIGH-CURRENT TAP SWITCHES

COMPACT • DEPENDABLE

Here's a line of non-shorting, rotary tap switches that combine high current capacity and a large number of taps, with unusual compactness. Their sturdy one-piece ceramic bodies provide permanent insulation, as the ceramic is not affected by arcing. The heavy silver-to-silver contacts have a self-cleaning action, and (except for the smallest unit) are totally enclosed and protected. Switch shafts are electrically dead—insulated by strong ceramic hubs. A positive cam-and-roller mechanism provides "slow-break, quick-make" action—particularly designed for alternating current use. Two or three of these Ohmite switches can be mounted in tandem to form multiple-pole assemblies.

Write on company letterhead for your copy of Ohmite's Catalog and Engineering Manual No. 40.

OHMITE MFG. CO.
4843 Flournoy St., Chicago, Illinois

Be Right with OHMITE

RHEOSTATS • RESISTORS • TAP SWITCHES

▲ Mention Item NED-3390 when writing ▲

When pipe joints MUST NOT LEAK USE *Plasgon*

Plasgon, the plastic adhesive and pipe joint cement, will make your pipe joints permanently leakproof. Easy to apply right from the tube. Remains flexible to withstand shock or jarring. Proof against oil, gasoline, kerosene, water, steam. Resists heat up to 350° F and stands considerable pressure.

You can use Plasgon to make plastic, easily-moulded gaskets or as an adhesive to bind porous or non-porous surfaces.

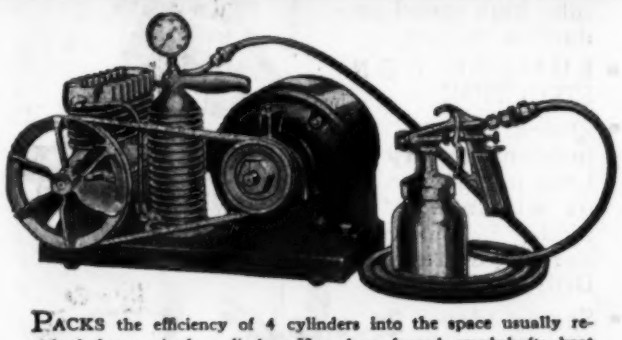
FREE SAMPLE of Plasgon and complete information. Write *today!*

Samuel Cabot, Inc.
2149 Oliver Bldg., Boston 9, Mass.

▲ Mention Item NED-3384 when writing ▲

PRESSURE QUEEN

FOUR CYLINDER PORTABLE AIR COMPRESSOR SPRAY PAINTING OUTFIT



PACKS the efficiency of 4 cylinders into the space usually required for a single cylinder. Has drop forged crankshaft; heat treated stainless steel valves; bronze bearings and forced feed lubrication. Delivers maximum 50-60 lbs. pressure free from pulsation.

The ideal air supply for machine shop, factory, garage, service station. Inflates tires; refinishes and lubricates automobiles, trucks, tractors and equipment, anywhere any time. Better, faster and cheaper than brush work for painting buildings. Indispensable for home and farm workshop.

Equipment includes the compressor, mounted as shown above, with belt, compressor pulley, air chamber, air gauge, 15 ft. hose, spray gun and grease gun, powered by ⅓ or ½ h.p. motor or gas engine. Immediate delivery.

IF YOUR DEALER DOES NOT SELL PRESSURE QUEEN, WRITE DIRECT.

THE CAMPBELL-HAUSFELD COMPANY
193 RAILROAD AVE. HARRISON, OHIO

▲ Mention Item NED-3388 when writing ▲

New "Power-Package" Unit for Roller and Belt Conveyors

The Standard
HANDI-DRIVE

THIS self-contained drive unit provides tractive power for any gravity conveyor — belt or roller. Converts present conveyors to live roller or belt—quickly at low cost.

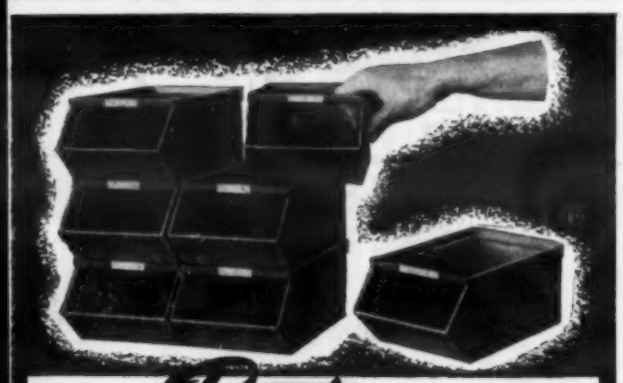
HANDI-DRIVE Bulletin No. NED-58 gives complete information — how to apply to present conveyors or plan new system with standardized units — straight, curves, or inclines. Write for copy today.

STANDARD CONVEYOR COMPANY, NORTH ST. PAUL 9, MINN.

SEND FOR HANDI-DRIVE BULLETIN.

Standard GRAVITY & POWER CONVEYORS

▲ Mention Item NED-3391 when writing ▲



Parts...

★ Where You Want Them . . .
★ When You Want Them

You'll save time, space and labor handling parts and material when you use these patented STACKBINS. STACKBINS keep parts instantly accessible—eliminate waste hand motions—stack compactly to form units of exactly the right shape and capacity—make order filling or assembly work faster, easier, more efficient. Heavy steel, all-welded construction.

Manufactured and sold in Canada exclusively by Wickware-Stackbin, Ltd., Ottawa.

Write Stackbin Corp., 1081 Main St., Pawtucket, R. I.

STACKBIN SYSTEM
"Stacked and Still Accessible"

▲ Mention Item NED-3392 when writing ▲

What's Interesting About UNION CHAIN'S Supervision?

Because dozens of precise operations go into the making of sprocket chain, trained and experienced supervisors are vital to the efficiency of each and the successful coordination of them all. At UNION CHAIN, where we make nothing but sprocket chain, attachments and sprockets, all our supervisors are specialists. We believe this concentration of supervisory skill in behalf of a single end product is interesting—and important—to our chain customers, present and future.

THE UNION CHAIN AND MANUFACTURING COMPANY
Sandusky, Ohio, U. S. A.

▲ Mention Item NED-3393 when writing ▲

MARKING DEVICE

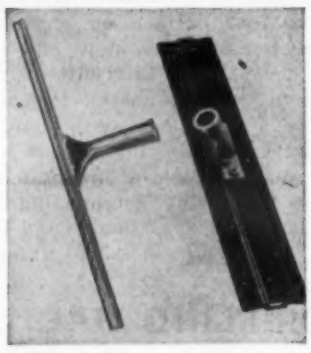
Small, portable E-Z Mark etching device reproduces trademarks, part numbers and other identifying symbols on steel, brass, copper, magnesium, zinc, bronze, tin and other metals and alloys. Markings are first written, typed or drawn on 2½ x 6¾-inch stencil film; film is placed in marking machine and markings are then electrically etched into surface. One side of electric circuit is connected by means of wire to pan or reservoir which contains sponge saturated with very weak etching acid. Stencil, which is similar in action to mimeograph stencil, acts as insulator except where it is marked.

Single stencil can be used for marking several hundred flat or round pieces. Switches are provided for continuous operation or single-piece marking. Self-contained rheostat and ammeter provide positive control. Unit is available for operation on either 115 or 230-volt alternating current. Made by **Crown Industrial Products Co.**, 1515 E. 53rd St., Chicago 15, Ill.

▲ Mention Item NED-3394 when writing ▲

WINDOW & FLOOR SQUEEGEES

Featuring replaceable rubber blade and adjustable brass holder, this window squeegee will meet all window wiping conditions. Loosening of two bolts permits movement of holder to any position on brass channel. Single rubber blade is set at proper angle for rapid, clean wiping, and it can be replaced by drawing lengthwise through channel. These squeegees are made in 12, 14 and 18-inch widths.



Floor squeegee, illustrated on right, has four working edges. Each double edge is V-shaped, and reversal of handle permits use of different working edge. Proper shape of blades and flexibility for efficient wiping are assured by tempered steel core that supports rubber. Floor unit is available in widths of 18 and 24 inches. Made by **Fuller Brush Co.**, Industrial Div., Dept. NED, Hartford 2, Conn.

▲ Mention Item NED-3395 when writing ▲

DO YOU KNOW?

■ ARCHITECTURAL Weldwood plywood, previously custom-made to specifications only, is now available in stock sizes. Furnished in matched veneer sets, panels are numbered in sequence for easy installation. Material is resin glued and designed for use in offices, display rooms and other locations where superlative effects are desired. Made by United States Plywood Corp., 55 W. 44th St., New York 18, N. Y.

▲ Mention Item NED-3396 when writing ▲

Adjustable
MULTI-DRILL
for Production Drilling

9" DRILLING AREA —AVAILABLE WITH 2 TO 8 SPINDLES

- Designed for accurate, high speed production drilling
- RUGGED CONSTRUCTION
- Quick, easy adjustments to **any** hole pattern on or within a 9" circle; ½" minimum center distances; Drill sizes 1/32" to ⅜"
- Special adaptations available.

MULTI-DRILLS are made in other sizes and models.

Write for details and name of your nearest Distributor.

COMMANDER MFG. CO.
4220 W. KINZIE STREET
CHICAGO 24, ILLINOIS

▲ Mention Item NED-3397 when writing ▲

FASTEST, MOST ACCURATE DEW POINT MEASUREMENT

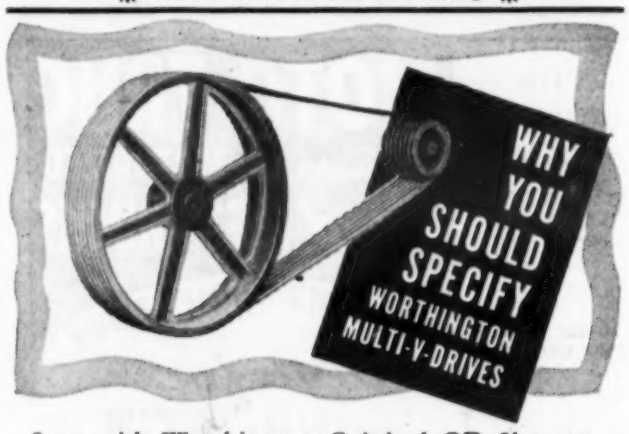
with the ALNOR Dewpointer!

EXCLUSIVE ALNOR ADVANTAGES
- No external coolant required! True portability and convenience.
- Dew or fog is observed suspended in air—not on a polished surface! Two or more observers get same accurate results!
- Greater speed in measurement!
- Greater accuracy at all times!

Send for details and prices! Address Illinois Testing Laboratories, Inc. Room 529, 420 N. La Salle St., Chicago 10, Ill.

Alnor PRECISION INSTRUMENTS FOR EVERY INDUSTRY

▲ Mention Item NED-3398 when writing ▲



Start with Worthington Original QD Sheaves. *Easy on, easy off, yet always tight on the shaft.* Strongest for their weight. Custom-built to your drive—available from stock.

Team them up with Worthington-Goodyear EC V-Belts. Endless cords all in one neutral plane are unaffected by flexure. Each cord carries its share of the belt-load, each belt carries its share of the drive-load.

Sheaves and belts available promptly, in all sizes from fhp to 200 hp. For details proving that in Multi-V-Drives, *there's more worth in Worthington,* write to *Worthington Pump and Machinery Corporation, Merchandising Division, Harrison, N. J.*

WORTHINGTON Dept. H819

B8-19

▲ Mention Item NED-3399 when writing ▲

USE SWIFT-FLOOR TO REPAIR Danger Spots

60 SECONDS AFTER APPLICATION IT'S READY FOR USE!

Repair your floors—prevent accidents. Just a few minutes transforms a danger spot to a tough durable floor. Supports 50,000 pound loads 60 seconds after application. Any workman can apply it. Just prime, fill and tamp. Unconditionally guaranteed. Write for details.

THE MONROE COMPANY, INC.
10705-D QUEBEC AVENUE • CLEVELAND 6, OHIO

▲ Mention Item NED-3400 when writing ▲

VARIABLE SPEED CONTROL

Variable speed control of V-belt and equipment up to a maximum 3 to 1 ratio is provided by this single lever controlled unit. Mechanically simple in design and sturdily constructed to withstand hardest service, models 1A and 2A Toledo variable speed controls have numerous unique features including: plain, smooth pulley, eliminating noise and vibration; stepless speed variation up to full 3 to 1 ratio; minimum pulley diameters are increased to transmit greater H. P. over entire range; new pulley design providing cylindrical bottom for V-belts which fixes minimum pitch diameters, preventing damage to belts and giving increased torque; single arm support, for easy belt application; large shaft, oilite bearings and lubricant reservoir; sector plate serving as dial indicator and additional locking medium; unusually attractive prices.

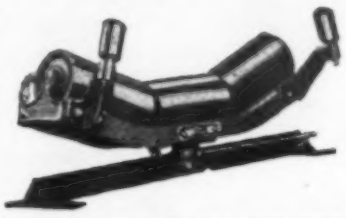
Wheel assemblies can also be purchased without mountings for application on machines providing built-in speed control.

If you have a variable speed control problem, either on plant equipment or on machinery you build for sale, investigate the Toledo variable speed control . . . you'll be interested in its efficiency and low price. Ratios as high as 10 to 1 are available. **The Toledo Timer Co.,** 2224 Albion St., Toledo, O. **—Advt.**

▲ Mention Item **NED-3401** when writing ▲

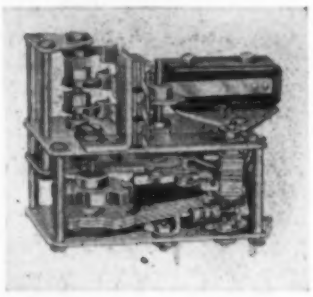
BELT CONVEYOR IDLER

Available in styles to handle troughed, flat and return belts, this self-aligning belt conveyor idler is interchangeable with practically all standard idlers. Troughing idlers can be installed without cutting into deck plate. Features include use of heavy-duty Timken bearings on 1¼-inch swivel shaft; extension of grease fittings to one side for ease and safety of lubrication; and hydraulic fittings as standard equipment, but with other types available. Made by **Continental Gin Co.,** Industrial Div., Birmingham 2, Ala.



▲ Mention Item **NED-3404** when writing ▲

CONSTANT-SPEED MOTOR

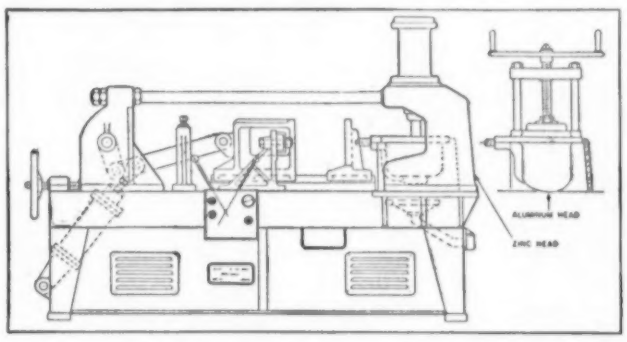


Various models of this small constant-speed motor are available for use on direct current voltages from 3 to 110. Motors have rotor shaft speed of 900 revolutions per minute; and built-in reduction gears, special cams and switching arrangements can be furnished to meet requirements of user. Utilizing polarized magnetic drive principle of vibrating reed, speed control provides clock-like accuracy. Basic motor frame and aluminum reduction gearing occupy space 2½ x 3½ x 1⅝ inches. Weight is approximately 10 ounces. Made by **Amglo Corp.,** 4234 Lincoln Ave., Chicago 18, Ill.

▲ Mention Item **NED-3405** when writing ▲

DIECASTING MACHINE

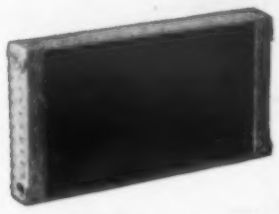
Pneumatically operated and controlled from single toggle switch, Two-Pounder diecasting machine will cast either aluminum or zinc at production rate of approximately 350 shots per hour. Change-over from zinc to aluminum can be accomplished without use of hand ladles for each shot of aluminum. Capacity of machine is 2 pounds of zinc or 1 pound of aluminum, on 12 x 18-inch standard die blocks. There are no tie bars through die blocks so that all four sides are open for core pulls or placement of inserts. Die carrier slides on dovetail ways. Made by **DCMT Sales Corp.,** Dept., NE, 121 Broad St., New York, N. Y.



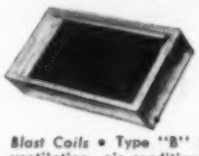
▲ Mention Item **NED-3406** when writing ▲

STANDARDIZE ON YOUNG HEATING-COOLING COILS AND AIR-CONDITIONING UNITS

Evaporator Coils • Type "E" for direct expansion cooling systems.



Commercial Coils • Type "C" for air conditioning, heating, drying, etc.



Blast Coils • Type "B" for heating, ventilating, air conditioning systems.

Air Conditioning Units • Heat, cool, humidify, dehumidify, filter.

YOUNG HEAT TRANSFER PRODUCTS

YOUNG RADIATOR CO.
Dept. 428-E Racine, Wis., U.S.A.
Sales & Eng. Offices in All Principal Cities

HEATING, COOLING AND AIR CONDITIONING PRODUCTS
Convectors • Unit Heaters • Heating coils • Cooling coils • Evaporators • Air conditioning units •

AUTOMOTIVE AND INDUSTRIAL PRODUCTS
Gas, gasoline, Diesel engine cooling, radiators • Jacket water coolers • Heat exchangers • Intercoolers • Condensers • Evaporating coolers • Oil coolers • Gas coolers • Atmospheric cooling and condensing units • Supercharger intercoolers • Aircraft heat transfer equipment

▲ Mention Item **NED-3408** when writing ▲

NEW LAB OVEN EQUALIZES HEAT *for Greater Efficiency*

Only Huppert's MODEL 5700 Combines . . . .

- EQUALIZED HEAT throughout oven, with simultaneous venting of unwanted fumes.
- THERMOSTATIC CONTROL, 70° to 550° F. 2% Scale range accuracy.
- TIMER controls heat periods as your schedule requires.
- EXPLOSION-PROOF latches, heavy steel construction, 2" insulation.
- PILOT LIGHT shows "On-Off."

HUPPERT MODEL 5700 $150

Without Timer $140

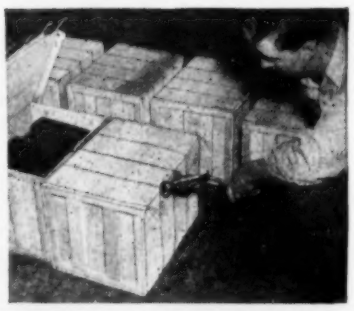
For precipitation, ash determination, general chemical analysis, steel drawing, etc.

ID 20" x 15" x 19"; OD 24" x 26½" x 24"; 110 V AC (220 V Single Phase); 1800 Watt Consumption.

K. H. HUPPERT CO.
6838 Cottage Grove Avenue, Chicago 37, Illinois

▲ Mention Item **NED-3402** when writing ▲

CUTS COSTS WITH General Boxes



Fafnir Bearing Company, manufacturer of thousands of different types and sizes of bearings, packs many of its products in General Wirebounds. Illustration shows workman speedily securing box with toggle type closing tool. Write us today on how you, too, can save time, space and materials by packing your products in General shipping containers.

ALL TYPES OF ENGINEERED SHIPPING CONTAINERS

GENERAL BOX COMPANY
GENERAL OFFICES: Corner of Illinois and Dearborn Streets, Chicago 10, Ill.

DISTRICT OFFICES AND PLANTS: Brooklyn, Cincinnati, Detroit, East St. Louis, Kansas City, Louisville, Milwaukee, New Orleans, Sheboygan, Winchendon, Natchez, Continental Box Company, Inc.: Houston, Dallas.

▲ Mention Item **NED-3403** when writing ▲

Here's RPM . . . to fit your DRIVES

Your special gearing needs are promptly handled, from application help to finished product, when you place your problems in the hands of Westinghouse geared drive engineers.

You're assured of gearing made with extreme accuracy, properly heat-treated, and carefully inspected and tested . . . to fit your job requirements and provide long service life.

Call your nearest Westinghouse office, or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Penna.

J-07265

Westinghouse INDUSTRIAL GEARING

▲ Mention Item **NED-3407** when writing ▲

Molded Plastic Parts of this type are *Duck Soup* FOR BOONTON

Coil Spool Molded by Boonton for National Pneumatic Company

Have You a Production Problem that Molded Plastics Might Solve?

What's in a coil form like this one? A lot of careful engineering and design. Sure! But there's a Boonton plus here too—a molded plastic base with metal inserts anchored where they're needed. A lot of plastic molding "know how" to mold it all neatly—accurately to thousandths—ready for your assembly line.

Does this give *you* an idea for a part you're designing, or one that's still in the "thinking stage"? Maybe *your* product doesn't call for an electrical part, but for a new housing, a more functional part, or an entire product that can be plastic molded cheaper, quicker. Boonton's equipped to mold by all 4 major molding processes—straight compression, transfer, plunger, or injection—in medium and large runs. Consider this:

Many of our customers have saved substantial sums of money by asking our engineers to talk to their engineers before their products reached the purchasing stage. They've been amazed and pleased at the ways we've come up with design and production suggestions that shaved costs all the way around. Perhaps we can do the same for you. Write or phone the Boonton Molding Company, Boonton 7, N. J., BOonton 8-2020.

SEND US YOUR BLUEPRINTS OR SAMPLES

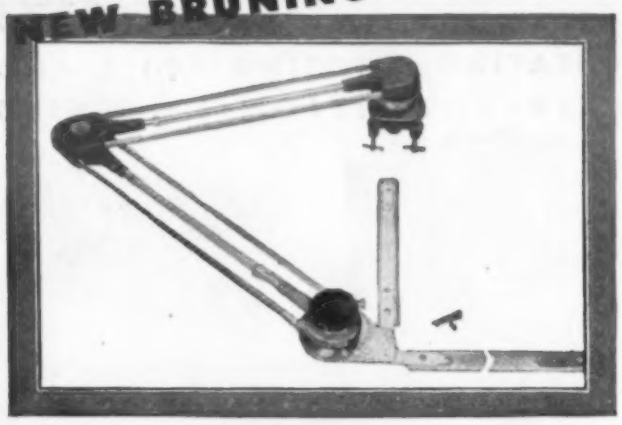
We'll tell you whether the parts you want can be plastic molded, and if they can, how much it will cost. Be sure to include full data on conditions of application or use, initial quantities needed, annual requirements, and delivery date.

Boonton

MOLDERS OF MOST PLASTICS BY MOST METHODS

▲ Mention Item **NED-3409** when writing ▲

NEW BRUNING



EQUIPOISE DRAFTERS

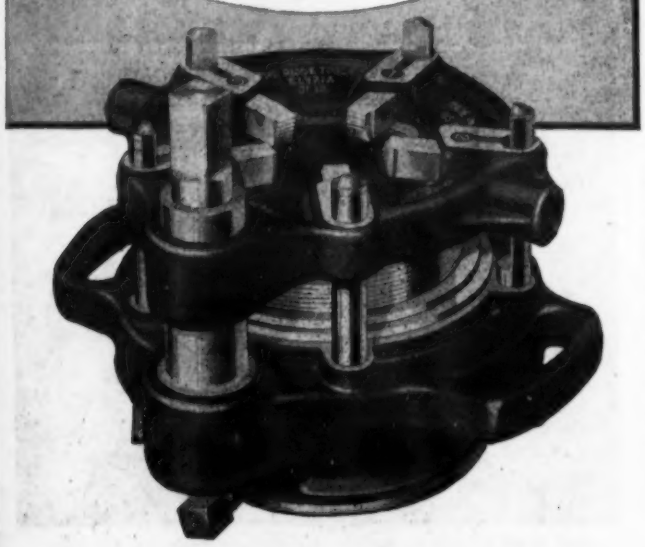
New smoothness in drafting—greater accuracy—unhampered speed are features of the new Bruning Equipoise Drafters—made in two models, Standard and Civil Engineer's. The Equipoise mechanism, a spring balancing device, assures accurate alignment of the machine at all times on an inclined drawing board. The Equipoise Drafter "floats" into any operating position without heavy brake drag. A revised protractor head assembly permits greater convenience in operation and maximum visibility—a new base line setting device for locking the protractor index point to any desired angle is simple in operation and positive in action. For complete information write Charles Bruning Company, Inc., 4730-64 Montrose Ave., Chicago 41, Ill.

BRUNING SINCE 1897

Mention Item NED-3410 when writing

Geared Pipe Threader

THAT'S MUCH EASIER TO HANDLE



New 2½" to 4" RIDGID 4P has balanced loop handles and quick-set workholder

● Want a geared die stock you can handle easily when it's greasy and you're tired? Here it is, the rugged new steel-and-malleable 4P. Those sensible loop handles make it easy to pick up, carry, put on pipe. Mistake-proof workholder sets to size *before* you put it on pipe, one screw to tighten, no bushings. Twin-anchored pinion in oilless bronze bearing . . . enclosed gear . . . safe . . . dirt-proof. Four sets of 5 dies. Ratchet handle — RIDGID universal drive shaft for power. A real worksaver — ask your Supply House.

RIDGID

WORK-SAVER PIPE TOOLS

THE RIDGE TOOL COMPANY • ELYRIA, OHIO

Mention Item NED-3411 when writing

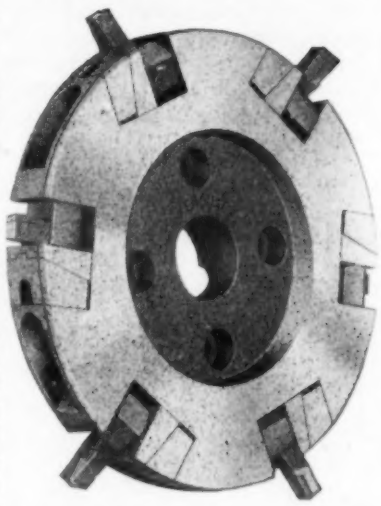
HYDRAULIC POWER UNIT

Midget - size Ten - Ton-Tony hydraulic power unit is suitable for wide range of industrial, plant maintenance, service, repair, and farm and road machinery applications. It has rated capacity of 3 gallons of oil per minute at 1200 revolutions per minute with 1000-pound per square inch pressure and 4½ gallons of oil per minute at 1800 revolutions per minute with same pressure. Approximately 2½ horsepower is required for operation at 1200 revolutions per minute.

Power unit can be incorporated in arbor presses; clamping devices; on forming, straightening and bending devices; light materials handling units; small balers; pressure inserting equipment; etc. Remote control is attained through flexible or stationary linkage that leads to lever mounted conveniently near operator. V-belt pulley drives power unit from fan shaft or power take-off. Four-way control valve permits use of double-acting cylinder that is hydraulically actuated in both directions. Made by Hydro-Power Div., **Hydraulic Press Mfg. Co.**, Springfield, O.

Mention Item NED-3412 when writing

FLY CUTTER & FACE MILL



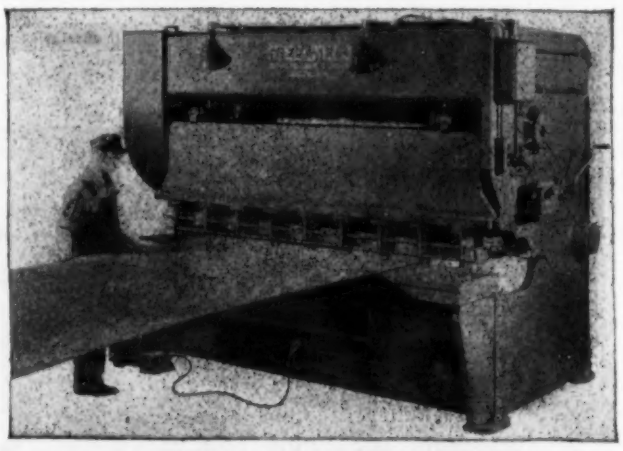
Designed to accomplish slotting as well as surface, straddle, form, fly and other types of milling operations, this Kendual fly cutter and face mill is available in 6, 8 and 10-inch sizes. Units will fit conventional arbors and standard American spindle nose drives. Hexagon shaped tool bit holders permit easy angular setting of bits and provide positive locking means to maintain setting. Cutters are adjusted quickly to meet changing requirements of either long production or short run jobs. Tool vibration is held to minimum, and there is adequate chip clearance. Made by **Kendall Corp.**, 2341 N. 29th St., Milwaukee 10, Wis.

Mention Item NED-3413 when writing

DO YOU KNOW?

Eighteen Pseudo-Isochromatic plates for testing color perception are available in bound edition. Included is demonstration plate for use by examiner in explaining to subject how test is made. Results obtained are tabulated easily, and score indicates whether subject is normal or defective in regard to red-green color discrimination. Available from American Optical Co., 1492 Mechanic St., Southbridge, Mass.

Mention Item NED-3414 when writing



ALL STEELWELD SHEARS Controlled Electrically!

Convenient electric foot-switch operation is standard for all Steelweld *Pivoted-Blade* Shears. The switch can be slid around floor to wherever handiest It eliminates tiresome leg lifting required for usual mechanical foot treadle.

Steelweld Shears are built in all sizes for plate to 1-1/4" thick. Get the facts on these truly modern machines.

STEELWELD Pivoted-Blade SHEARS CATALOG No. 2011

Send for free Catalog No. 2011

THE CLEVELAND CRANE & ENGINEERING CO.
6609 East 282nd St., Wickliffe, O

STEELWELD SHEARS

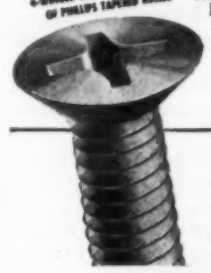
Mention Item NED-3415 when writing

. . . when AMERICAN PHILLIPS SCREWS Fasten Better Faster!

Here's the PRODUCTION "LIFT" — Production goes up, cost goes down for elevator-escalator builders, appliance, furniture, auto and other manufacturers who assemble with fast fumble-proof, automatically straight-driving American Phillips Screws! This *maintained* speed means TIME SAVINGS UP TO 50% — with a bonus in no scars or work spoilage and added safety for workers.

Here's the SALES APPEAL "LIFT" — No burrs to catch hose or clothes with this smart, decorative, straight-set screw head that speaks quietly of solid construction from here on in — that's the American Phillips Screw. Why not get these competitive advantages in speed, sales and COSTS today? Write:

AMERICAN SCREW COMPANY, PROVIDENCE 1, RHODE ISLAND



AMERICAN PHILLIPS Screws

Mention Item NED-3416 when writing

GENERAL PLATE Laminated SILVER ON BERYLLIUM COPPER

Gives you Solid SILVER CONDUCTIVITY plus SPRINGINESS of Beryllium Copper

Here's the General Plate Laminated Metal that you have been waiting for . . . General Plate *Silver* on *Beryllium Copper*. This laminated combination gives you the good conductivity of silver . . . which was lacking where only Beryllium Copper was used . . . plus the springiness of beryllium copper.

General Plate Laminated Silver and Beryllium Copper is available in combinations of silver on one side or both sides . . . or silver between two layers of beryllium copper (centerlay).

From tiny switch blades to heavy strips . . . General Plate Laminated Silver and Beryllium Copper will give you better performance plus long life. Investigate this new metal combination, today. Write for information.

GENERAL PLATE COMPANY
Division of Metals and Controls
ATTLEBORO, MASSACHUSETTS

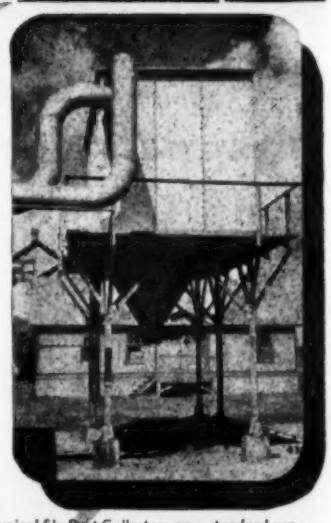
Mention Item NED-3417 when writing

SLY PIONEERS AND LEADERS IN Dust Control

Sly Dust Control actually filters the dust out of the air by passing it through a series of cloth bags ingeniously arranged in a compact space within the filter case. The cleaned air contains no visible dust.

Sly Dust Control complies fully with the requirements of the laws and regulations of the various states. This equipment is not expensive.

Ask for Bulletin 98. Tell us your problem so that we can write you fully!



Typical Sly Dust Collectors on a standard support with walkway, with dust pipes leading to the filter. All Sly Dust Collectors are of weather-proof construction for out-of-door installation. Standardized construction for low cost.

THE W. W. SLY MFG. CO.
4748 Train Avenue • Cleveland 2, Ohio

Representatives in New York • Chicago • Philadelphia • Detroit • Cincinnati Rochester • St. Louis • Toronto • Los Angeles • Birmingham • Minneapolis

Mention Item NED-3418 when writing

ELECTRONIC AMPLICALL INTERCOMMUNICATION

Makes Every Working Minute Count for B. F. GOODRICH

SEE YOUR CLASSIFIED PHONE BOOK under "Intercommunication" for your local AMPLICALL specialist, or write us direct.

Businessmen everywhere know the time-saving value of good office and plant intercommunication. Mr. G. O. Fossen, Chicago District Manager of the B. F. Goodrich Co., says: "Ours is a busy organization in which rapid and efficient service is an important factor. We rate our new AMPLICALL System as an invaluable asset. It saves time, motion and energy in our office, warehouse and shipping areas . . ." *You*, too, can make every working minute count in every branch of *your* business—with AMPLICALL—America's Finest Business Communication System. Get the full details today—see your classified phone book or write us direct.

Electroneering is our business

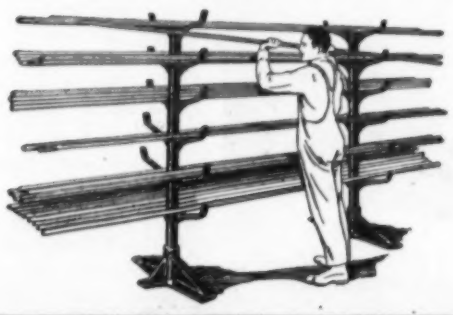
SOUND TELEVISION Rauland INTER-COMMUNICATION

THE RAULAND CORP. • 4255 N. KNOX AVE., CHICAGO 41, ILL.

▲ Mention Item NED-3419 when writing ▲

—WANT QUICK SERVICE IN YOUR STOCK ROOM?

The BROWN SECTIONAL RACK saves the time previously lost in end-hauling each bar of stock its entire length from the old-style, closed-side Rack, the Brown Rack requiring but a few inches of side movement. Each length, width and thickness of stock is displayed in goldfish visibility for instant selection. Workmen waiting for stock are served without waste of time. Any time you require additional storage space, all you need do is add more units. If you want to relocate it at any time, you can do so quickly for it is unattached to the building. It is a simple, durable article made of metal in five styles. It can't burn up, warp, sag, or twist; depreciation is practically nil. SEND FOR BULLETIN NO. 26-D DESCRIBING THE BROWN SECTIONAL RACK.



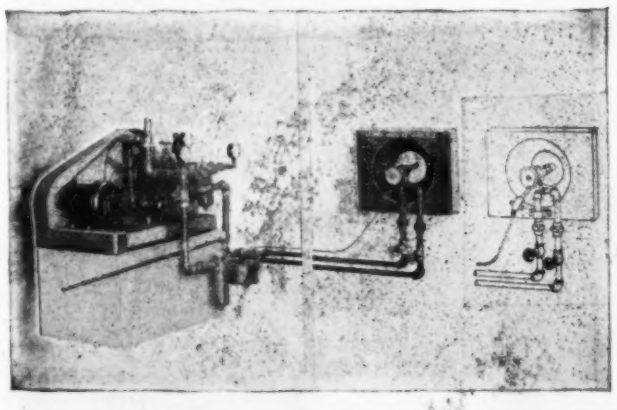
BROWN ENGINEERING CO.
129 NORTH 3RD ST. READING, PENNA.

▲ Mention Item NED-3420 when writing ▲

LEIMAN BROS.

FUEL OIL BURNERS

No More Ash Removal Problems
No More Attendance Problems
one or more burner nozzles my be used with one pump set.



Let us figure up your possible savings over other fuels.

Send for a Sample Layout without obligations.

LEIMAN BROS. 167-5 Christie St. Newark 5, N. J.

▲ Mention Item NED-3421 when writing ▲

PORTABLE POWER CONVEYOR

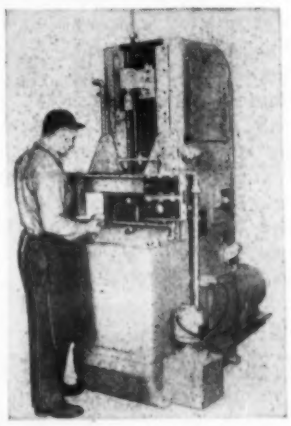
Designed for use in stockrooms, warehouses, on loading platforms and in other industrial areas wherever stock must be raised or lowered, this Tipp Power Freight

Ladder has capacity of 250 pounds when used as portable unit and up to 1000-pound capacity when permanently installed. Unit consists of aluminum car which rides on 3½-inch aluminum channels and motor which is located on cross member of frame. Plastic knob on end of shuttle bar operates drum type switch to control movement of car up or down or to stop it at preselected level. This switch also acts as limit control.

Ten-foot section with gear-head motor weighs 80 pounds. Table, or car, is adjustable to any angle from 45 to 90 degrees to assure level load regardless of angle of conveyor. Bottoms of channels are fitted with rubber-tread ladder shoes to provide safety of operation. Available from **Triangle Equipment Co.**, Dept. A, 45 River Rd., Nutley 10, N. J.

▲ Mention Item NED-3422 when writing ▲

BROACHING MACHINE



Hydraulically operated model VP-2-8-24 vertical pull-up broaching machine features electrical controls and push-button operation arranged to complete one full cycle on semiautomatic setting. Provision can be made to stop machine at end of broaching stroke for step-cycle control. Fully automatic operation is possible by building hydraulic interlocked loading slide into machine with magazine type loading unit.

Machine has broaching stroke of 24 inches. Normal capacity is 8 tons, and broaching speed is variable from 15 to 24 feet per minute. Multiple tooling can be provided for greater production. Standard equipment includes coolant pump and piping, hydraulic pumping unit, speed controls and pressure gage. Made by **American Broach & Machine Co.**, 413 W. Huron St., Ann Arbor, Mich.

▲ Mention Item NED-3423 when writing ▲

DO YOU KNOW?

'Open house' as a public relations tool is analyzed in 32-page book. This practical operating text includes suggested procedure for holding all types of 'open house' functions as well as detailed descriptions of three successful programs which have been presented by representative plants. Illustrations include photographs of plant tour maps, welcome booklets, programs and actual open house scenes. Available from National Metal Trades Association, 122 S. Michigan Ave., Chicago, Ill.

▲ Mention Item NED-3424 when writing ▲

USE "SAFETY" CODE SYMBOL STAMPS
FOR
- PIECE WORK IDENTIFICATION
- INSPECTOR'S APPROVAL
- DATE CODING
- CONTAINER CONTENTS
- SPECIFICATIONS
- UNLIMITED CODE USES

"Safety" Code Symbol Stamps for every code identification purpose are furnished in stock or special designs—in "Safety" Heavy Bevel or Wedge-Grip styles as shown above. Write for literature or proposal on your needs.

M.E. CUNNINGHAM CO. SAFETY STEEL STAMPS

151 East Carson Street • Pittsburgh 19, Pa.

▲ Mention Item NED-3425 when writing ▲

NEW TORNADO VACUUM CLEANER

Small—Compact Efficient

More powerful than any domestic cleaner!

for every type of use—Hotels, Restaurants, Hospitals, Office Buildings. The first small size vacuum cleaner built to large, industrial type standards. Sturdy, powerful ½ HP universal motor, 1¼-inch hose, weighs only 29 lbs. Has tremendous suction with a 47-inch water lift and does a quicker, more thorough cleaning job than many machines of larger size.

Sound-deadened, it is extremely quiet in operation. Motor completely enclosed in top with air filter. Tank has ample capacity and is finished in attractive baked-on enamel; gleaming aluminum base with large, easy-rolling casters.

Low in first cost—Low in operating cost

Write for Literature and Free Demonstration

BREUER ELECTRIC MFG. CO.
5098 Ravenswood Ave.
Chicago 40, Illinois

▲ Mention Item NED-3426 when writing ▲

NOW from STOCK

No matter what your pulley requirements may be—for small or large diameter, narrow or wide face; for practically any type of belt conveyor service—you can depend on Link-Belt Welded Steel Pulleys to give complete service-life satisfaction. Ask for Folder No. A-938.

LINK-BELT COMPANY
Chicago 9, Indianapolis 6, Philadelphia 40, Atlanta, Dallas 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8. Offices, Factory Branch Stores and Distributors in Principal Cities.

LINK-BELT WELDED STEEL PULLEYS

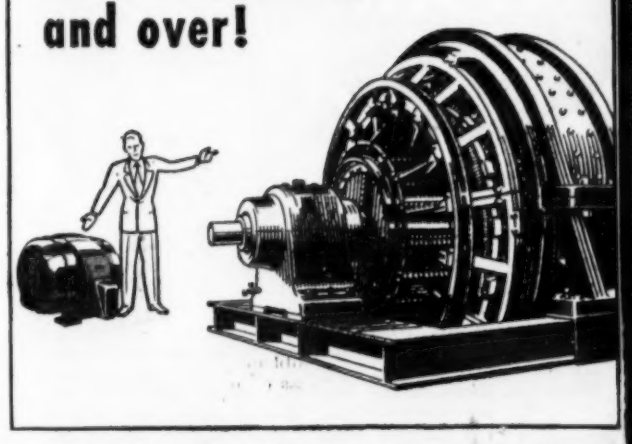
FEATURES of Link-Belt welded steel pulleys

- Fully welded water-tight and dust tight.
- Removable hub except for 6" and 8" diameters.
- Hubs are flush with face of pulley.
- Hubs keyseated in line, with two set screws.
- Interchangeable hubs; many stock size hubs available.
- Chamfered hub for easy shaft entry.
- Minimum weight and non-breakable.
- May be rubber lagged to increase belt friction.

10,994

▲ Mention Item NED-3427 when writing ▲

"Headquarters" for Motors ½ to 25,000 hp. and over!



DO YOU NEED standard, open squirrel-cage motors between 1 and 200 hp? Contact your Allis-Chalmers *dealer* or *district office*. Either can probably supply you from stock now. For motors 250 hp and up, call your Allis-Chalmers *field engineer*. He's an *expert* . . . can help you solve problems involving big *or* small motors. All A-C dealers and district offices have up-to-the-minute motor delivery data available. Get Bulletin 51B6052H.

ALLIS-CHALMERS
MILWAUKEE 1, WISCONSIN

A 2424

▲ Mention Item NED-3428 when writing ▲

Portable Cord and Cable Grips

Cord and cable grips for portable wiring offer a complete line of substantially built fittings for heavy duty service. The standard types shown have aluminum body, aluminum compression nut, and single hole rubber grommet. Two and three hole grommets can also be furnished.

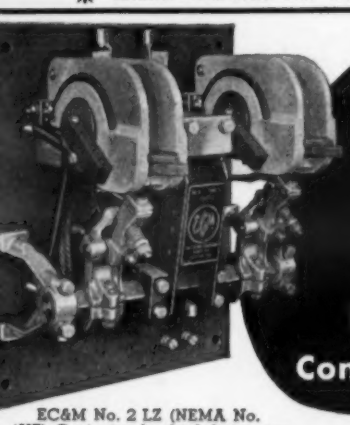
Angle types are available; also female bodies with or without chase nipples; also with serrated body for mounting in sheet metal panels or cabinets.

Compression nuts with split clamp, with hose attachment, with extended handle, or with cord protecting spring are available. Couplings for flexible conduit can be supplied.

Consult your Pylet Catalog 1100 for complete listings.

THE PYLE-NATIONAL COMPANY
SINCE 1897
1342 NORTH KOSTNER AVENUE, CHICAGO 51, ILLINOIS

Mention Item NED-3429 when writing



AND NOW A New Line of High Frequency Contactors

EC&M No. 2 LZ (NEMA No. 4HF) Contactor for high-frequency hardening and heating service.

Developed specifically for closing and opening the high frequency power circuits in heat treating or hardening applications — on frequencies up to 10,000 cycles per second.

Known as the Type LZ of *LINE-ARC* Design, these EC&M contactors are of double-pole construction, using one pole to open each side of the line. Their blow-out coils are not subject to excessive heating from eddy currents, but are introduced in the circuit at the time the contactor starts to open to interrupt the flow of current.

Ask for Bulletin 1215 which gives sizes, ratings, and dimensions of these outstanding new contactors. If you have a specific problem please advise (1) frequency (2) control voltage and (3) ampere capacity so that we can write you fully.

THE ELECTRIC CONTROLLER & MFG. CO.
2698 EAST 79th STREET • CLEVELAND 4, OHIO

Mention Item NED-3430 when writing

You can HEAR HERE

—a zone of quiet for telephoning

Noisy factory offices may mean confused telephone conversations and the possibility of costly mistakes.

Burgess "Scout" Model 601 Acousti-Booth solves this problem by providing a quiet place in which to hear, regardless of noisy surroundings. When you listen to the telephone inside this booth, you are protected by a "zone of quiet," provided by the Burgess acoustic construction. Model 601 Acousti-Booth and others, both wall type and full-length booths, shut out unwanted noise. Send today for free descriptive folder.

ll-length cousti-oths avail-le of steel plywood nstruction.

Write for FREE Bulletin!

Burgess-Manning Company
743-C East Park Avenue, Libertyville, Illinois

Please send illustrated booklet describing the Burgess Acousti-Booth.

NAME _____
FIRM NAME _____
STREET-CITY _____

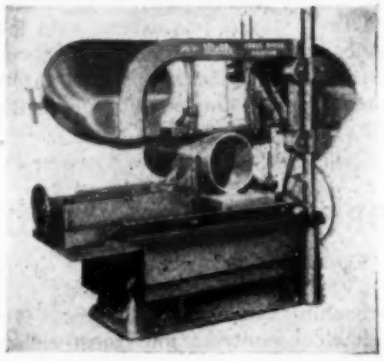
Mention Item NED-3431 when writing

SMALL BALL BEARING

Of radial-thrust type, this Micro ball bearing has 5/64-inch bore, 1/4-inch outside diameter and 3/32-inch width. It is of non-separable design with machined solid bronze retainer carried by ground lands of inner ring. Fully ground, this ball bearing operates smoothly at low as well as extra-high speeds. Usual application is in opposed pairs, in which case both axial and radial play can be reduced to zero with preloading to suit. Made by **New Hampshire Micro Ball Bearings, Inc.**, 5 Micro Circle, Peterborough 1, N. H.

Mention Item NED-3432 when writing

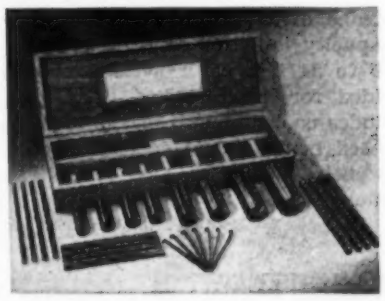
METAL CUTTING BAND SAW



Improved model 12 heavy-duty metal cutting band saw with automatic cutting cycle and electrically controlled blade pressure (*Item NED-4004, July '47*), now features self-contained wet cutting system. System which is integral part of machine includes chip pan, fluid tank, centrifugal type pump-motor unit, splash guards and protective screens. All working parts are readily accessible, flow adjustment is controlled by valve, and system has capacity of 3 gallons of fluid. Wet cutting system permits higher cutting speeds and increases blade efficiency. Made by **Wells Mfg. Corp.**, Seventh Place, Three Rivers, Mich.

Mention Item NED-3433 when writing

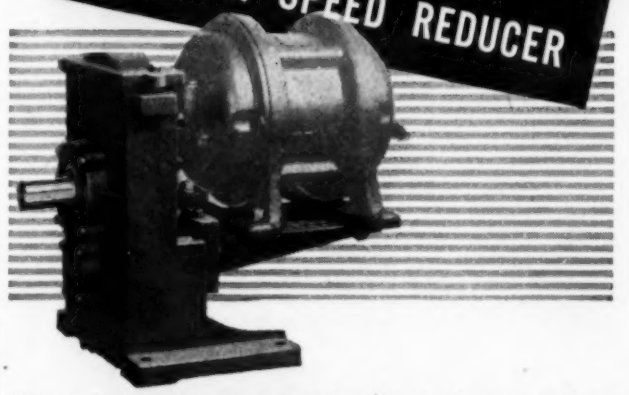
KEYWAY BROACH KIT



Capable of cutting all standard keyway sizes approved by American Standard Association, this Minute Man keyway broach kit contains all necessary bushings, broaches and shims. Bushings are provided for hole sizes from 1/2 to 1-9/16 inches in increments of 1/16-inch. Correct size bushing is dropped in bore, broach of desired width is placed under arbor press and in bushing slot, and press pushes it through in single operation. Exact depth of keyway is obtained by using shims. Keyways can be cut thus in gears, milling centers, pulley hubs, couplings, collars or other parts. Kits are furnished in sturdy hardwood cases. Made by **du Mont Corp.**, Greenfield, Mass.

Mention Item NED-3434 when writing

Fit Speeds to Job Needs with a CULLMAN SPEED REDUCER



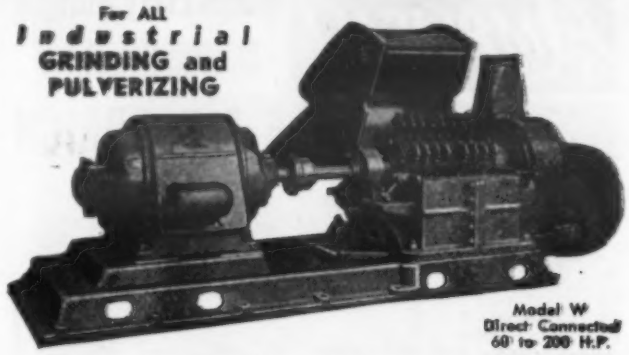
It's easy to adapt any standard high speed electric motor to slower machine operations by adding a Cullman Speed Reducer. This gives a new range of low speeds to match job requirements. Cullman Speed Reducers are made in single and double reduction types for motors from ¼ to 15 h.p. Compact, durable, efficient—Cullman units are equipped with Roller Bearings, Helical Gears, Sprockets and Roller Chains —*all operating in oil*. Convenient motor mountings simplify installation.

Get the facts . . . Write today for full information.

CULLMAN WHEEL COMPANY
1333-B Altgeld Street • Chicago 14, Illinois

Mention Item NED-3435 when writing

For All Industrial GRINDING and PULVERIZING



Model W Direct Connected 60 to 200 H.P.

JAY BEE Hammer Mills

Jay Bees Grind ANYTHING grindable—from feathers to firebrick

Increase Capacity — Reduce Operating Costs

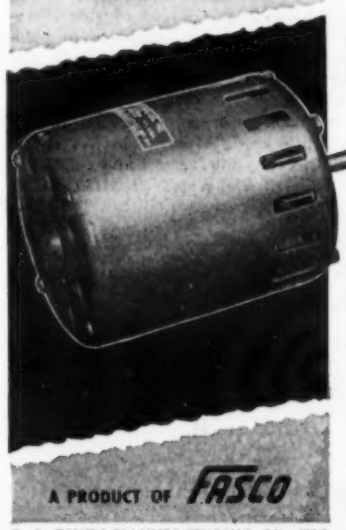
Whatever you grind . . JAY BEE Mills solve your problems with notable efficiency. Strength, durability and precision of operation are combined to give you a maximum of continuous operation, capacity and quality grinding at a minimum cost.

JAY BEE Mills, result of over 25 years of manufacturing experience, are made in many sizes and models . . 12 to 200 H.P., for Belt, V-Belt or Direct Connected drives . . for every grinding and pulverizing purpose. It will pay you to write for details.

J. B. SEDBERRY, INC.
Franklin, Tennessee

Mention Item NED-3436 when writing

NOW YOU CAN HAVE THE PROVED ECONOMY OF A SHADED POLE MOTOR IN ⅛ HORSEPOWER!



The FASCO Series R Fractional H.P. Motor is *new, exclusive* and offers definite sales advantages. Available before only in a capacitor or split phase type motor at higher cost. A real money-saver where continuous operation under long hour duty load is demanded. Ideal where starting torque is low and running torque requires up to ⅛ H.P. Quiet, economical, trouble-free operation and dependable speed control.

WRITE on your company letterhead for complete information, including specifications and performance data. No obligation.

A PRODUCT OF FASCO

F. A. SMITH MANUFACTURING CO., INC.
750 DAVIS ST. • ROCHESTER 2, N. Y.

FORMERLY Pilot MOTORS

Mention Item NED-3437 when writing

Mention Item NED-3438 when writing

Gold Stripe BRUSHES are back!

● Again you can enjoy the lasting service of America's finest brushes. Today's Gold Stripes are better than ever—100% pure China bristle, tapered construction, perfect balance and *riveted stainless steel ferrules.*

● Now that Gold Stripe brushes are back, why accept less? Try Gold Stripe today and see for yourself why craftsmen call it their finest painting tool. Gold Stripe brushes are available in a variety of sizes to fit your every need. Gold Stripe comes to you in its protected fiber jacket that keeps brush lively, straight and clean.

Gold Stripe BRUSHES

BRUSHES · PAINT · GLASS · CHEMICALS · PLASTICS

PITTSBURGH PLATE GLASS COMPANY

▲ Mention Item NED-3439 when writing ▲

Marvinol®

NEW VINYL RESIN

offers these advantages

One: Products made from Marvinol may be crystal clear, brilliantly or delicately colored, tasteless and odorless . . . have greater resistance to heat, light, aging, oils, acids, other destructive factors . . . superior flexibility at low temperatures.

Two: High molecular weight gives Marvinol extra toughness, "dryness" . . . yet it is easy to formulate into film, coatings, rigids, elastomers.

Three: Marvinol is a development of Martin research and experience . . . is being produced in the world's most modern chemical plant.

Four: No division of The Glenn L. Martin Company compounds or fabricates in the plastics field. Technical cooperation is available through expert sales engineers and a fully equipped customer service laboratory. Write: Chemicals Division, The Glenn L. Martin Co., Baltimore 3, Md.

Martin Marvinol

Resins, Plasticizers and Stabilizers, Produced by The Chemicals Division of

THE GLENN L. MARTIN COMPANY—
AN INTERNATIONAL INSTITUTION

"Better Products, Greater Progress, Are Made By Martin."

▲ Mention Item NED-3440 when writing ▲

YOU CAN

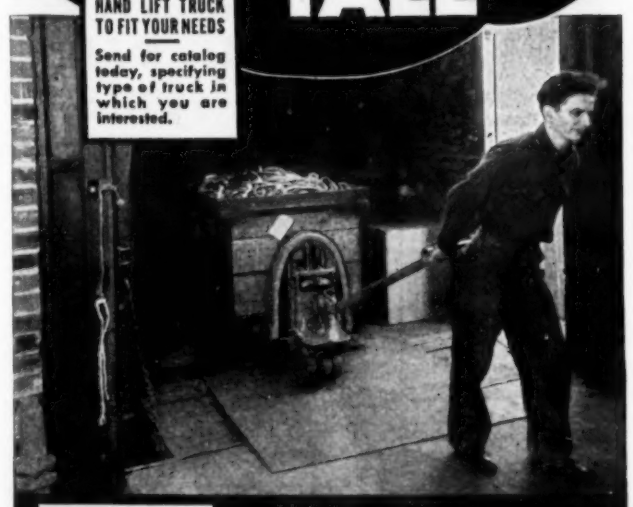
HOLD DOWN UNIT LABOR COSTS

. . . when you move it with a

YALE

THERE'S A YALE HAND LIFT TRUCK TO FIT YOUR NEEDS

Send for catalog today, specifying type of truck in which you are interested.



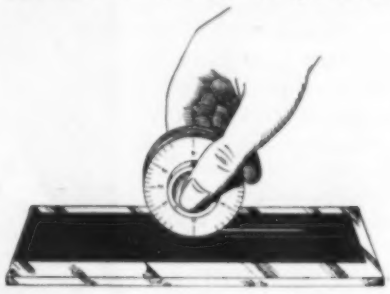
YALE THE YALE & TOWNE MANUFACTURING CO.
4530 Tacony Street Philadelphia 24, Pa.

ELECTRIC TRUCKS · HAND AND ELECTRIC HOISTS · KRON DIAL SCALES

▲ Mention Item NED-3441 when writing ▲

WET FILM THICKNESS GAGE

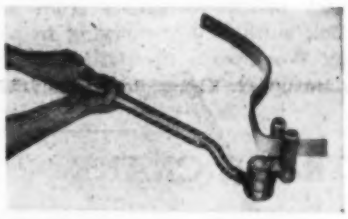
Interchemical wet film thickness gage (*See Feb. '48 NED*) is now available in several sizes for measuring coatings ranging in thickness from 0 to 2, 0 to 4, 2 to 12 and 10 to 30 mils. Accurate measurement on simple concave or convex surfaces is possible with these instruments as long as radius of curvature is greater than radius of gage. Thickness reading can be made on any specimen a few seconds after coating has been applied by merely rolling device over surface. Gage eliminates variation in coating density, surface tension and rheological properties. Made by **Henry A. Gardner Laboratory, Inc.,** 4723 Elm St., Bethesda 14, Md.



▲ Mention Item NED-3442 when writing ▲

ADJUSTABLE BENDING BAR

More than 100 different positions are possible with No. 2135 bending bar for bending, straightening, aligning, spreading and forming various types of parts and materials. Two adjustable arms can be placed close together or far apart, and they can be positioned on hexagon post so that handle will project at desired angle. Ample leverage can be obtained with 36-inch handle. Made by **Plomb Tool Co.,** Dept. D, 2209 Santa Fe Ave., Los Angeles 54, Calif.



▲ Mention Item NED-3443 when writing ▲

REPRODUCTION MACHINE

Incorporating built-in dial-controlled filter that simplifies and speeds up operation, improved Apeco Photoexact Copier (*See Oct. '42 NED*) is capable of exposing up to 60 or more copies per hour. Uniform contact between reproduction paper and original copy is assured by hard plastic printing surface through which light reaches sensitized paper. Maximum diffusion of light insures clarity of reproduction over entire area. Unit can be used for making copies of photographs, drawings, blue-prints, tracings, press clippings, graphs and charts, office forms, work sheets, letters and other record material. It can accommodate sheets up to newspaper size. After exposure in this copying machine, sensitized paper is processed in chemical baths. Darkroom is not required. Made by **American Photocopy Equipment Co.,** Dept. NED-1, 2849 N. Clark St., Chicago 14, Ill.

▲ Mention Item NED-3444 when writing ▲

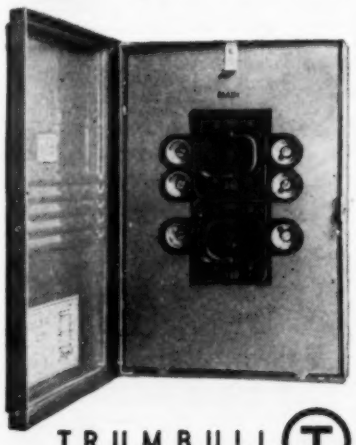
3 REASONS WHY

CENTRAL STATIONS, CONTRACTORS AND USERS ARE SWITCHING TO TRUMBULL FUSE PULLER SWITCHES

1. ECONOMICAL—The combination of circuits in each device represents a considerable saving as against the cost of the same circuits purchased separately.

2. EASY TO WIRE—Entire switch interior can be removed as a unit by loosening one screw—a great convenience in wiring. Solderless lugs provided for further ease in making wiring connections.

3. SNAP-IN ACTION—Contact stabs on main and range pull-outs eliminate possibility of either circuit working out of position.



TRUMBULL ELECTRIC

THE TRUMBULL ELECTRIC MANUFACTURING COMPANY
PLAINVILLE, CONNECTICUT
OTHER FACTORIES AND OFFICES THROUGHOUT THE U. S. A.

▲ Mention Item NED-3445 when writing ▲

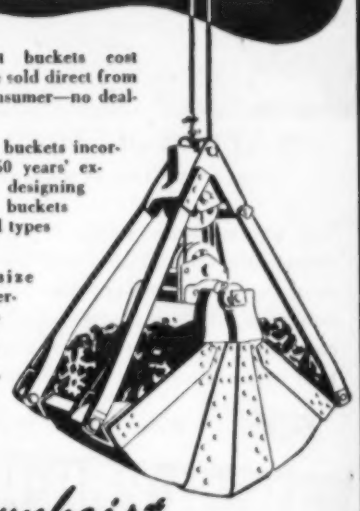
Buy a Better Bucket FOR LESS MONEY Buy Brownhoist

DIRECT FROM FACTORY TO YOU

● Brownhoist buckets cost less—they are sold direct from factory to consumer—no dealer profits.

● Brownhoist buckets incorporate over 50 years' experience in designing and building buckets for handling all types of materials.

● Standard size rope-reeve, power-wheel and link-type Brownhoist buckets are available for immediate shipment.



Brownhoist

Write for illustrated catalog of Brownhoist Buckets

INDUSTRIAL BROWNHOIST CORPORATION
139 Washington Ave., Bay City, Michigan

▲ Mention Item NED-3446 when writing ▲

USE Wirebound BOXES and CRATES

Wirebound Box Manufacturers Association, Room 1828 Borland Building Chicago 3, Illinois

▲ Mention Item NED-3447 when writing ▲

"I always carry a MASTER Streamline"

Says Mr. Charles A. Fuller...*

* 501 E. 5th Street, Mount Vernon, N. Y.

"The Streamline is perfect for quick, accurate measurements. It's my first choice in steel tape rules."

Whether you are a home hobbyist or professional mechanic, it pays to be accurate . . . and you'll find Streamline's accuracy unquestioned. Graduations on both sides of blade and lever brake for holding reading . . . inside-outside measure. Ask your hardware or building supply dealer about the Streamline today or use the coupon to order yours.

MASTER

REG. U.S. PAT. OFF.

WOOD AND STEEL TAPE RULES

Master Rule Mfg. Co., Inc. C-5
201 Main Street, White Plains, N. Y.
I enclose ☐ $2.00 for the 6 ft. Streamline.
I enclose ☐ $2.50 for the 8 ft. Streamline.
Gentlemen:
Name .....
Address .....
City ..... State .....

▲ Mention Item NED-3448 when writing ▲

AW SUPER-DIAMOND FLOOR PLATE

GIVES YOU THE EXTRAS AT NO EXTRA COST

You get maximum safety in AW Super-Diamond Floor Plate because, wet or dry the exclusive pattern grips without a slip. It's easy to clean and easy to match. It has over 1001 uses in plants and on products.

EXTRA Safety!
EXTRA Economy!
EXTRA Service!

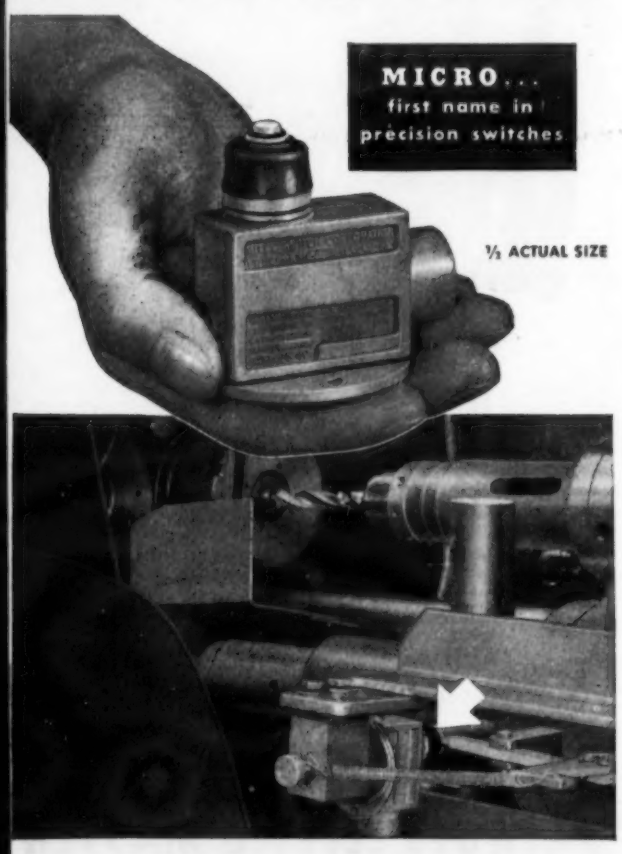
FREE —Write for our 16 page catalog L-35

AW SUPER-DIAMOND
FLOOR PLATES THAT GRIP

A Product of ALAN WOOD STEEL COMPANY
Conshohocken, Pa.

▲ Mention Item NED-3449 when writing ▲

MICRO *Precision Switches*



Save Dollars . . . Here is how to stop drills from breaking

The above illustration is of a machine drilling pins which are fed into the machine automatically. They are brought into position and forced into the collet by a plunger arm. The drill comes up at a high rate of speed and with force. When a chip falls between the plunger arm and the next pin to be drilled, it interferes with correct positioning of the pin; the drill hits it too soon and in many cases snaps. To correct this condition, a MICRO precision die cast enclosed switch is installed as shown. When a chip falls into the machine and holds the plunger out of position, it actuates the switch, which reverses the drill and prevents damage. Similar safety switch applications can be made on many types of machines.

This is an example of how the use of one MICRO precision switch can save you many dollars. MICRO engineers will be glad to give you information on this type of application.

Would you like to receive "MICRO TIPS", our periodical showing plant uses for MICRO precision switches? We'll gladly put your name on the mailing list upon request.

© 1948 First Industrial Corp.

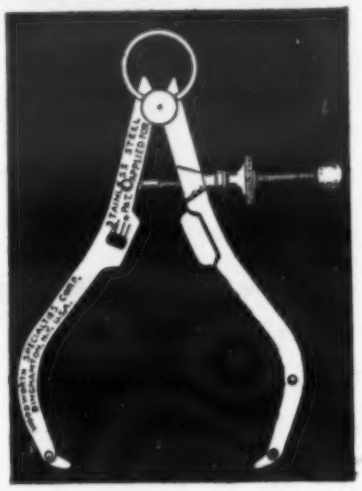
MICRO MS SWITCH
A DIVISION OF FIRST INDUSTRIAL CORPORATION
FREEPORT, ILLINOIS, U. S. A.

BRANCH OFFICES: CHICAGO 6, 308 W. Washington St.; NEW YORK 17, 101 Park Avenue; CLEVELAND 3, 4900 Euclid Avenue; LOS ANGELES 14, 1709 West 8th St.; BOSTON 16, 126 Newbury St.

SALES REPRESENTATIVES: PORTLAND, ORE., 917 S. W. Oak Street; ST. LOUIS 5, 6625 Delmar; DALLAS, TEXAS, Irwin-Keasler Bldg.; TORONTO, Ontario, Can., 11 King St.

▲ Mention Item NED-3450 when writing ▲

OUTSIDE INDICATOR CALIPER



Accurate measurement of outside dimensions or diameters is facilitated by means of this outside indicator caliper. Made of stainless steel throughout, instrument has hollow legs, one of which encloses spring actuated hand. Pointer end of hand comes to outside through slot in leg and sweeps across indicator marks when pressure is applied to opposite end of hand.

Caliper is made in 4-inch size but will adjust somewhat larger if necessary. In use, it is adjusted to bring pointer to 0. Since pointer moves 0.02-inch for every 0.001-inch movement of contact point, variations from setting are readily noted. Box suitable for carrying in tool kit is supplied. Made by **Woodworth Specialties Corp.**, 184 Broad Ave., Binghamton, N. Y.

▲ Mention Item NED-3451 when writing ▲

TRUCK CRANE

Featuring remote control, P & H truck cranes are particularly suitable for pile driving. Operator has full control of carrier from crane cab so that he does not have to leave cab to drive and position unit as work progresses. Control of steering, shifting, starting and stopping is accomplished by means of pushbuttons. Cranes have one engine for travel and another for crane service so that travel over highways is accomplished at truck speeds. Other features include hydraulic control, independent planetary boom hoist, planetary load lowering and all-welded construction. Made by **Harnischfeger Corp.**, 4537 W. National Ave., Milwaukee 14, Wis.

▲ Mention Item NED-3452 when writing ▲

DO YOU KNOW?

Practically odorless as result of refining process, PD942A petroleum by-product can be used as solvent in interior paints as well as in formulations of paste, waxes, polishes and creams. In latter group, it yields uniform and economical applications having buffing ease. In paints, it eliminates need for usual waiting period until paint is dry and odors are dissipated. Made by Socony-Vacuum Oil Co., 26 Broadway, New York 4, N. Y.

▲ Mention Item NED-3453 when writing ▲

Empco JACKS

Set and *KEEP* Your Machines LEVEL!

Machine Tool Manufacturers strongly emphasize the need, not only to set machines level, but to keep 'em that way. Periodic re-leveling is essential for accurate work tolerances. How often, depends on the type of foundation. No method of machine setting is stable enough to maintain the accuracy of initial leveling. It is important to check after first month of operation, then check periodically and re-level whenever necessary.

When a machine is set on EMPCO JACKS, the whole operation is the work of but a moment: Simply apply a wrench to the "hex" screw head, turn right or left until your level indicator reads "zero."

3 SIZES
No. 1—2" normal height
No. 2—2⅝" normal height
No. 3—3⅛" normal height

EMPCO

THE ENTERPRISE MACHINE PARTS CORPORATION
2727 JEROME AVE. DETROIT 12, MICH.

▲ Mention Item NED-3454 when writing ▲

Automatically across this beam

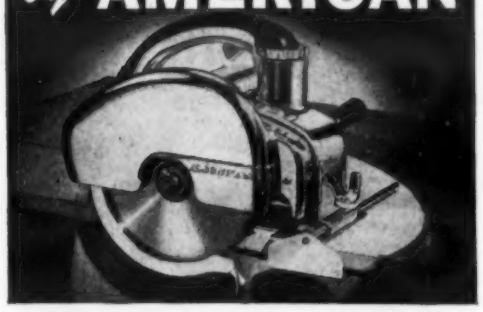
You can operate magnetic counters, solenoids, motors up to 1 hp, direct from the relay contacts, and larger motors, through starters, with this G-E photoelectric relay combination.* It's completely automatic. The beam from the light source is focused on the phototube in the relay. Any object interrupting this beam operates the relay contacts. The relay contacts are rated at 110, 230 volts, a-c, and 115, 230 volts, d-c. **For details, see Bulletin, GEA-3533A.** *Apparatus Department, General Electric Co., Schenectady 5, N. Y.*

**Underwriters Laboratories approved*

GENERAL ELECTRIC

▲ Mention Item NED-3455 when writing ▲

NEW BIG POWER SAW by AMERICAN



Saves Time and Labor!

Here's the new American Portable Electric Saw—designed to *save time and labor and cut costs* in production work. Makes short work of many jobs in shipping and maintenance departments. Speedy . . . easy for one hand operation. Won't stall—power to spare with special G.E. motor which develops 1½ H.P. Blade speed, 6500 R.P.M. 8" blade. Adjustable. Precision-built . . . dependable. Write for more details. The American Floor Surfacing Machine Co., 524 So. St. Clair Street, Toledo 3, Ohio.

▲ Mention Item NED-3456 when writing ▲

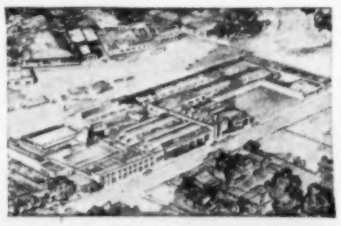
LABORATORY AND SWITCHBOARD CONNECTORS

TYPE SRP

Surface Mounted Socket Receptacle
30-amp. 60-amp.

TYPE SPB

Surface Mounted Pin Receptacle
30-amp. 60-amp.



Made in the big Cannon Electric plant in Los Angeles, California.

ONE OF
THIRTEEN MAJOR TYPE SERIES

IDEAL for test panels, decade units, laboratory equipment, etc., the Lab and Switchboard Type series includes, in additional to the two types shown at left, plugs in single, double and four contact units, with combination socket and pin contacts available on the same plug.

Fully illustrated, dimensioned in the Lab & Switchboard Bulletin; Prices in RJC-2 Catalog. Address Dept. E-113.

SINCE 1915

CANNON ELECTRIC
Development Company
3209 HUMBOLDT ST., LOS ANGELES 31, CALIF.

▲ Mention Item NED-3457 when writing ▲

Designed and built to your specific needs, Fab-Weld all-steel equipment means top economy, strength and durability. Trucks, dump hoppers, skids, racks and bin boxes are examples of Fab-Weld geared-to-the-job engineering. Many variations of these essential forms of materials handling equipment have been designed and built for our clients, as well as many other special types for use with difficult-to-handle products.

Write our Materials Handling Division for full details. Representatives in all principal cities.

FAB-WELD CORPORATION
SALMON & PICKWICK STS.
PHILADELPHIA 34, PA.

▲ Mention Item NED-3458 when writing ▲

STEEL BELT CONVEYOR

By combining 4 or 5-foot center sections with basic head and take-up sections, Flex-E-Unit steel belt conveyor can be assembled to any required length up to 175 feet. Conveyor provides solid, moving table suitable for assembly or other operations. Four widths ranging from 12 to 36 inches are available in either 3 or 6-inch pitches. Conveyor moves at 30 feet per minute or at any other speed required by user. Belt can be tilted, and jigs or fixtures can be bolted to flights. Head, or drive section, and take-up section at opposite end can be disconnected at any time to lengthen or shorten conveyor by adding or removing intermediate sections. Made by **Sermat Conveyor Corp.**, 2354 W. 58th St., Chicago 36, Ill.

▲ Mention Item NED-3461 when writing ▲

JEWEL INDICATOR POINT

Dial indicator gage contact points are now available tipped with either sapphire or ruby jewels. Points are made with hexagonal buffed stainless steel bodies 0.187-inch across flats and 0.437-inch long overall with 4-48 thread 0.187-inch long. Jewels are ⅛-inch in diameter with 0.187-inch point radius and are cemented and spun into bodies and brought to high polish. Points will fit practically all bench type indicators and can be installed by hand or with small wrench. Special threads are available. Made by **Corundum Co.**, 1777 E. 87th St., Cleveland 6, O.

▲ Mention Item NED-3462 when writing ▲

HYDRAULIC PRESS

Of cast Meehanite box type construction, models G4, G6 and G8 gap type hydraulic presses have 4, 6 and 8-ton capacities respectively. They have strong rigid frames which hold vibration and deflection to minimum. Model G4 shown in illustration receives diameters up to 14 inches and has maximum daylight opening of 21 inches. Powered by 7½-horsepower motor, ram has down speed of 300 inches per minute. Seventeen by ten-inch table is 36 inches from floor. Coolant tank for wet broaching operations is standard equipment.

Accessory equipment includes ram speed control device, coolant pump and piping and electric time lag for timing out cycle. Models G6 and G8 have similar specifications and are powered by 10-horsepower motor. Made by **Greenerd Arbor Press Co.**, Dept. G, 41 Crown St., Nashua, N. H.

▲ Mention Item NED-3463 when writing ▲

▲ Mention Item NED-3465 when writing ▲

They walk safely!

Bird Rubberlike Runner is non-skid, *wet or dry* . . . that's why stores everywhere protect their customers . . . and their busy traffic aisles . . . with this tough long-wearing thermoplastic runner. It lies flat, won't buckle, and it's self-healing . . . cuts and nicks are resealed by the pressure of foot traffic.

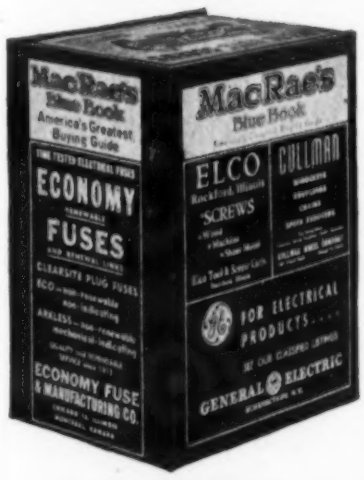
Costs less than 7c a square foot . . . the perfect floor runner for schools, restaurants, factories, offices . . . anywhere there's foot traffic. In rolls 27" x 100', 36" x 75'. Order from distributor or write for free sample. Bird & Son, inc., 72 Mill Street, East Walpole, Mass.

BIRD RUBBERLIKE® Runner
PATENTED NON-RUBBER CONSTRUCTION
BIRD

▲ Mention Item NED-3459 when writing ▲

MacRae's Blue Book

The Complete Buying Guide for Every Industrial Product



Handy

Efficient

More Accessible

More Manageable

all in one book

For advertising rates call your agency or write to MacRAE'S BLUE BOOK COMPANY
18 E. Huron St., Chicago, Ill.

▲ Mention Item NED-3466 when writing ▲

Why 4 out of 5 Shops re-order NI-ROD

Of all plants that tried NI-ROD* welding electrodes, *82 per cent became regular users.* That is what the sales records of a NI-ROD distributor show.

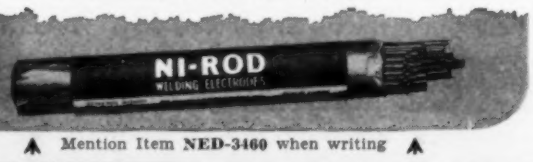
Here are some reasons why NI-ROD is preferred by so many welding shops:

- **NI-ROD makes strong, crack-free, non-porous welds in *cast iron*.**
- **NI-ROD welds are fully machinable.**
- **NI-ROD saves time; rarely requires any special preparation such as preheating.**
- **NI-ROD is easy to use; has a stable arc.**
- **NI-ROD works on both AC and DC.**

Let NI-ROD prove its way in your own shop. Order a five-pound package today. Your distributor stocks it in 3/32", 1/8", 5/32" and 3/16" diameters. *Reg. U. S. Pat. Off.

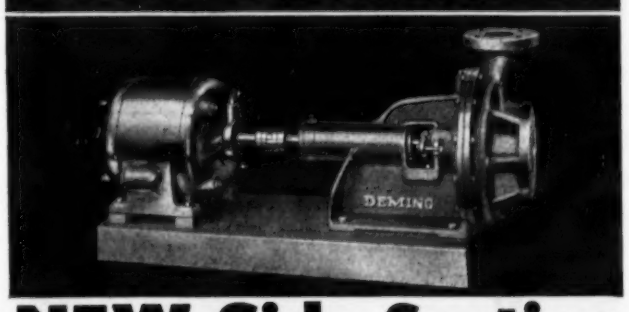
THE INTERNATIONAL NICKEL COMPANY, INC.
69 Wall Street, New York 5, N. Y.

EMBLEM OF SERVICE INCO NI-ROD

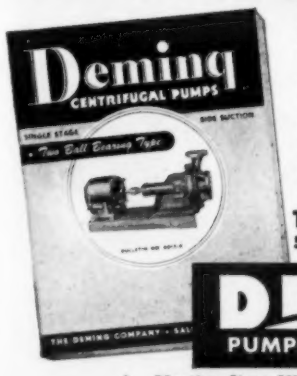


▲ Mention Item NED-3460 when writing ▲

NOW AVAILABLE



NEW Side Suction Centrifugal Pumps



Designed for general industrial, heavy duty service. Double ball bearing type. Many important features. Full range of sizes from 1 to 10 inch discharge. All capacities from 10 to 1200 gallons per minute. Furnished for belt, electric motor or gasoline engine drive. Orders placed NOW assured prompt deliveries. *Write for illustrated Bulletin 4013-A.*

THE DEMING COMPANY
520 BROADWAY • SALEM, OHIO

DEMING THE COMPLETE LINE
PUMPS AND WATER SYSTEMS

▲ Mention Item NED-3464 when writing ▲

*REG. U. S. PAT. OFF.

THE latest James G. Biddle Co. bulletin describes the "Meg" type of "Megger"* Insulation Tester—an instrument that provides a quick easy means for anyone to measure electrical insulation and conductor resistance almost anywhere. The "Meg" Tester is your insurance against many preventable electrical failures and consequent production delay. It is ideal for field or shop . . . direct reading, self-contained, and housed in a sturdy plastic case. It's simple to operate, too. Just make connections, turn the crank of the built-in d-c generator and read resistance directly from position of pointer over scale. Write today for new *Bulletin 21-45-D.*

JAMES G. BIDDLE CO.
Electrical & Scientific Instruments
1316 ARCH STREET, PHILADELPHIA 7, PA.

▲ Mention Item NED-3467 when writing ▲

Save money, space, weight with SPEEDAIRE

SPEEDAIRE is Cleveland's new fan-cooled, worm-gear speed reducer. Because it is fan-cooled, Speedaire will do more work—will deliver up to *double the horsepower* of standard worm units of equal frame size. For full description, rating tables, etc., send for Catalog 300. The Cleveland Worm & Gear Company, 3283 East 80th Street, Cleveland, Ohio.

CLEVELAND Worm Gear Speed Reducers

Mention Item NED-3468 when writing

...for top air output *plus* economy

SPECIFY DAVEY

Davey Model 60

DAVEY *Departmental* COMPRESSORS GIVE YOU THESE ADVANTAGES

- Power savings
- Lower air losses
- Maximum air operating efficiency
- Make plant expansions easy and economical
- Eliminate shutdowns due to compressor failures
- Air cooling
- Ease of installation
- Reduced maintenance and replacement expense

DEPARTMENTAL COMPRESSORS

IN LINE with today's trend toward employment of small departmental compressors instead of one large centralized machine, Davey offers a complete line of industrial units.

These are available in 60, 105, 160, 210 and 315 c.f.m. capacities. And every Davey has GUARANTEED LIFETIME VALVES.

Write for Bulletin E-219

DAVEY

Dealers in Principal Cities

P&P-103-A

DAVEY COMPRESSOR CO. • KENT, OHIO

Mention Item NED-3469 when writing

Test Viscosity

Where it Counts the Most

When it Counts the Most

at Point of Process!

WITH A BROOKFIELD SYNCHRO-LECTRIC VISCOMETER

At last, Point of Process Viscosity readings are not only practical, but simple, rapid, and accurate as well. The Brookfield Viscometer is portable and plugs into any ordinary electrical outlet Operation is completely automatic and readings are given directly in centipoises.

ONLY A BROOKFIELD HAS ALL THESE ADVANTAGES

• Portable — use in lab and plant • Rapid — readings in 30 seconds • Accurate — within 1% of range • Simple — no technical knowledge to operate or to read • Rugged — built to take plant handling without getting out of order.

BROOKFIELD ENGINEERING LABORATORIES, INC.

230 Porter Street, Stoughton, Mass.

Please send me your new 8 page booklet describing and illustrating the various Brookfield Models and their uses.

Name .....

Company .....

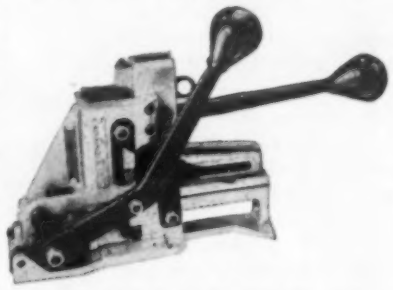
Address .....

City ..... *State* .....

Mention Item NED-3470 when writing

STEEL STRAPPING TOOL

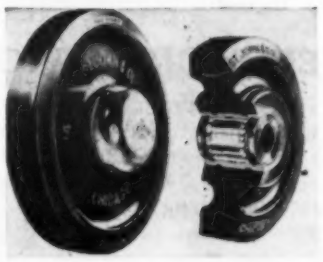
Suitable for applying steel strapping to bundles as well as boxes, crates and cartons in wide range of sizes, lightweight model A-2 Seal-feed strapping machine tensions, cuts and seals with minimum effort. Seals are contained in magazine and feed automatically to point of work. Reloading units are inserted quickly. Stretcher and sealing handles of tool operate smoothly with continuous, positive motions. When used on conveyor line, unit can be attached to mount designed for purpose. Made by **Signode Steel Strapping Co.**, 2632 N. Western Ave., Chicago 47, Ill.



Mention Item NED-3471 when writing

MOLDED HAND TRUCK WHEEL

Designed for use in industrial plants where unusual conditions exist, Neotread molded hand truck wheels withstand excessive moisture, oil, fats, acids, alkalis and wide range of temperature variations. Hard rubber-fiber wheel core is bonded to cushion tread of Neoprene. Antifriction ball bearings provide for maximum performance and are effectively sealed against moisture and dirt. Zerk fittings facilitate lubrication. Wheels are furnished in both standard and special sizes Made by **St. John & Co.**, 5800 S. Damen Ave., Chicago 36, Ill.



Mention Item NED-3472 when writing

CARBIDE TIPPED FACE MILL

Width of carbide tips on square tool bit blades of improved type E-Con-O-Mill standard face mills (*Item NED* 949, *Feb.* '48) has been increased from ⅜ to ⅝-inch. They extend full width of blade and ¾-inch back from cutting edge. Blades, furnished with all clearance angles finish ground, are protected by plastic coating and individually cartoned. Three types of blades are available for cutting various metals. To make identification easy, each blade is clearly branded, and each type is in a different color. Additional equipment includes assembly fixture which accommodates all sizes of cutters. Made by **Gairing Tool Co.**, 21221 Hoover Rd., Detroit 32, Mich.

Mention Item NED-3473 when writing

Can you name an Industry not using Formica Parts?

The list of Formica Parts users reads like a Directory of World-wide Industry. Tell us what you need and Formica will produce your parts to your specifications. Typical examples:

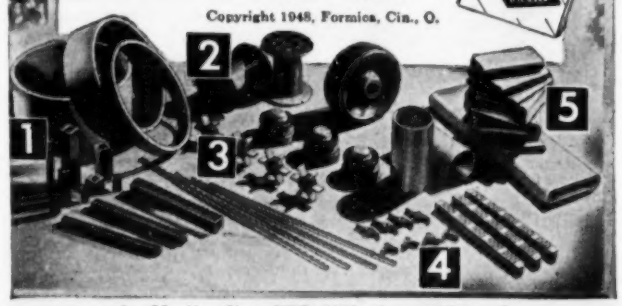
1. Tubing Used in Rayon Manufacturing Machines.
2. One-piece Bobbins . . . Textile Industries.
3. Flexible Couplings for Motor Drives.
4. Automotive Distributor Breaker Arms.
5. Bus Bar Insulators . . . Electrical Mfg.

Beauty Bonded FORMICA at Home with People at Work in Industry

For "Data on Formica" and typical sample parts, write FORMICA, 4671 Spring Grove Ave., Cincinnati 32, O.

Data on Formica

Copyright 1948, Formica, Cin., O.



Mention Item NED-3474 when writing

K-P *Engineered* WIRE MESH

SIEVING, SIZING, SEPARATING, STRAINING and FILTERING in ALL INDUSTRIES

Korb-Pettit Wire Mesh is not only first quality in material and workmanship but is engineered for the job involved. Made in all ductile metals, meshes and weaves, plain or rolled. Also available in abrasion, corrosion and rust resistant metals. *Write for Catalog No. 35.*

KP "Keeps Promises"

KORB-PETTIT

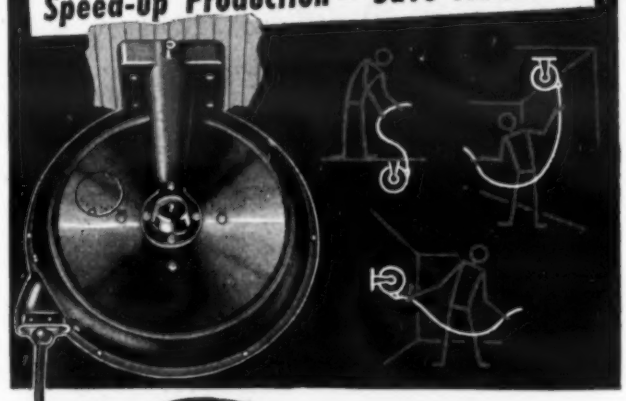
Wire Fabrics & Iron Works Inc. Engineers and Manufacturers

1501 North Mascher St. Philadelphia 22, Pa.

Wire Mesh, Spiral Woven Wire Conveyor Belts, Infra-Red Conveyor Dryers, Leather Finishing and Drying Machines, Industrial Wire Partitions. Machine and Window Guards, Cages, Enclosures, Grilles, etc.

Mention Item NED-3475 when writing

Cut Air-Hose Costs — Prevent Accidents Speed-up Production — Save Time . . .



with CHAMPION AIR-HOSE REELS

FOR CEILINGS—WALLS AND FLOORS

Champion Air-Hose Reels more than pay for themselves in the hose they SAVE. Champion Reels keep hose *off-the-floor,* eliminate the danger of tripping. Air-hose is always convenient to operator . . . a time saver that speeds-up production. Stays put at desired length—a slight pull rewinds hose at governed speed. Fully enclosed reel housing with swivel or stationary mounting. Furnished with 30 or 35 foot hose. Write TODAY for complete data sheet.

2616

CHAMPION PNEUMATIC MACHINERY CO.

8180 SOUTH CHICAGO AVENUE • CHICAGO 17, ILLINOIS

Mention Item NED-3476 when writing

PUSH TO START

PULL TO STOP

NEW MODEL 110

DOUBLE SPINDLE HEAVY DUTY BUFFER and POLISHER

One of the greatest innovations to add efficiency and ease of operation

Combination switch and brake automatically stops the wheel spindle when switch is in "STOP" position

Designed primarily for the polishing and burnishing trades. Model 110 eliminates cycle changing equipment and waste in power transmission. Also useful for numerous other purposes in industry. TWO CHROME MANGANESE STEEL SPINDLES mounted on heavy duty ball bearings driven by separate motors in base, operated together or separately.

CONTACT YOUR DISTRIBUTOR OR WRITE DIRECT

The UNITED STATES ELECTRICAL TOOL Co.

CINCINNATI, OHIO

Mention Item NED-3477 when writing

Mention Item NED-3478 when writing

What Does Tramp Iron Cost You?

EVERY damaged machine, every production delay, every fire or explosion caused by tramp iron means an increase in your cost . . . You'll be surprised to learn how simply and economically costs can be lowered and processing lines protected with ERIEZ Permanent Magnetic Separators . . .

New Bulletin Tells How It's Done

Bulletin 102-B describes the many types of Eriez Permanent Magnetic Separators designed for industrial use, and how they remove tramp iron. Pertinent data and engineering drawings showing size, weight and construction are given. Write for it today!

AND HERE'S WHY ERIEZ IS A PROFITABLE INVESTMENT

1. First Cost is Last Cost . . . No wiring accessories or current necessary.
2. No Operating Cost . . . Minimum Maintenance.
3. Uninterrupted Operation at Full Power.
4. No Burn-Outs in Wet Materials.
5. Alnico Castings Guarantee Permanent Strength.
6. Made any size to fit original equipment or existing conveying equipment.
7. The Correct Magnetic Separator for Every Job.
8. Ten Year Guarantee to Maintain Full Magnetic Strength.

Eriez Magnetic Separators Engineered To Fit Your Requirements.

59 East 12th Street

ERIEZ MANUFACTURING CO.
Erie, Pennsylvania

Mention Item NED-3479 when writing

CLEVIS GRAB HOOK

Easily and quickly attached or detached from chain link, this clevis grab hook employs clevis pin locked in place by cotter pin to affix it to chain. Special housing covers end of clevis pin through which cotter pin fits, providing safety feature that prevents cotter pin from catching on workers' clothing or scratching their hands. All parts are drop forged and heat treated for maximum strength. Hooks are available in sizes from ¼ to ⅝-inch. Made by **Thomas Laughlin Co.**, 111 Fore St., Portland 6, Me.

Mention Item NED-3480 when writing

COUNTING SYSTEM

Counting of small parts, packaging operations, printing press runs, machine operations and production runs can be performed accurately and at high speed by means of this photoelectric counting system. It can be applied to a number of machines to indicate production or control operation when predetermined number of pieces has been processed. Circuits will resolve simultaneous or random counts from ten sources.

Multiple-slotted counting device shown in illustration employs ten separate photoelectric detectors operating in parallel and connected to electronic counter. Parts can be fed by means of endless belt or shake table. Counter will register each part even though ten parts fall past individual detectors at same instant. Counting system made by **Potter Instrument Co.**, Dept. A, 136-56 Roosevelt Ave., Flushing, N. Y.

Mention Item NED-3481 when writing

FLASHING SAFETY FLARE

Automatic Thoro-Flares flash red signals to indicate danger zones on roads, railroads, airports, oilfields, yards and docks. Device is portable, and red neon light is clearly visible at distances up to 500 feet. Light penetrates rain, fog, sleet and snow and is quickly recognized. Fresnel lens keeps beam of light in horizontal plane so that it can be seen from any direction. Flare operates continuously for 100 hours on standard 6-volt lantern battery, and brilliancy is not diminished by battery depreciation. Devices are available in complete kits consisting of three flares in steel weatherproof case or as single flares. Individual unit is small enough to fit into glove compartment of passenger car. Made by **Signal Mfg. Corp.**, 624 S. Michigan Ave., Chicago 5, Ill.

Mention Item NED-3482 when writing

THE "Easy-tote" TRADE MARK REGISTERED DEPARTMENTAL TRUCK

NEW — SAFE — UNIQUE — PROVEN

Down go handling costs on countless small, important but long-neglected jobs. Large and small plants use this all-purpose truck to out-maneuver and out-perform conventional hand trucks. There's nothing else like it. Three wheel arrangement, swivel caster in rear, low tilting baseplate (16" x 22"), adjustable hook and crank permit one man to handle loads up to 400 lbs. quickly, *without lifting injuries*. No need to "muscle the load" . . . see 1-2-3 below. At only $26.50 it's worth a try . . . NOW! Write for FREE bulletin E-3.

SOME TERRITORIES OPEN—WRITE

THE EASY-TOTE PRODUCTS CO.
P. O. Box 86 Buffalo, 17, N. Y.
Factory and Warehouse, Lancaster, N. Y.

Mention Item NED-3483 when writing

MEMO to Machine Tool Men

HERE'S 2 New Timesaving Machine Tool Accessories Worth Investigating

1 GORTON Cross-Compound Rotary Table

Easy to use. Made to save time . . . reduce costs. Designed for die, mold, and toolroom work. Also handles various types of vertical milling and boring assignments. Made for center-line layout where cut is directly on workpiece according to print dimensions. Features: 15" rotary base; 18" saddle; 12" sq. table.

2 GORTON Multi-Spacer Indexing Fixture

Recommended for use on all appropriate types of milling, drilling, boring and grinding operations. Built-in automatic selector. Permanent index discs. No loose parts. Seven positions . . . 2, 3, 4, 6, 8, 12 and 24 divisions . . . available. Features: 9" dia. table; sealed mechanism; vertical or horizontal set-up; base milled for either ½", ⅝" or 11/16" keys.

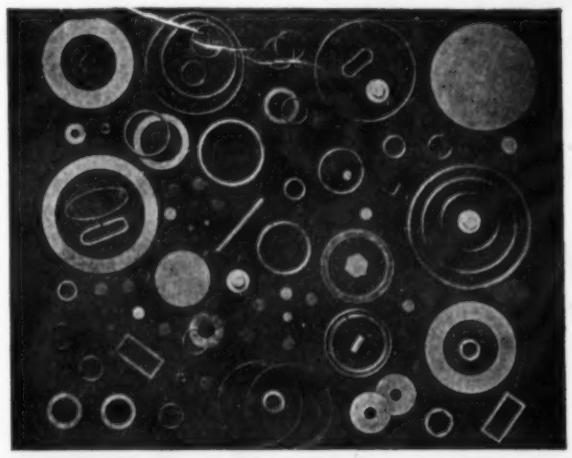
FREE BOOKLET. Get complete information on these and other Gorton Timesaving Accessories by writing today for Free Bulletin No. 1317.

GEORGE GORTON MACHINE CO.
1905 RACINE STREET • RACINE, WISCONSIN, U. S. A.

Mention Item NED-3484 when writing

SPEEDIER PRODUCTION • LOWER COSTS WITH KRE-CO PREPLACED BRAZING ALLOYS

Tell us to send you facts and figures that show how the use of KRE-CO rings, discs, flat washers and stampings in any shape or size, to meet any metal joining requirement, can be used to lower production costs. Made from Easy-Flo, Sil Fos, Copper, Phos Copper, Bronze and Aluminum. Request for facts involves no obligation.



CHARLES W. KRIEG COMPANY
48-60 Dickerson St. - HUmboldt 5-2000 - Newark 4, New Jersey

Mention Item NED-3485 when writing

FLASH-O-LENS
ILLUMINATED MAGNIFIER DESIGNED FOR INDUSTRIAL INSPECTION

Send for this Free NEW FLASH-O-LENS Catalog Today!

READ how industry eliminates guesswork from important inspection jobs by using Flash-O-Lens for accurate, quick industrial inspection.

Portable Battery Models and Electric Plug-in Models available with 5, 7, 20, or 40 power lenses.

Priced from $9.35

Use coupon for free illustrated catalog.

E. W. PIKE & CO. ELIZABETH 3 NEW JERSEY

Flash-O-Lens spotlights as it magnifies inspection of:
Castings • Engravings
Glass • Grain
Industrial Finishes
Leather • Metals
Milk • Paint
Paper • Stamps
Photographs
Sand • Seeds
Textiles

E. W. Pike & Co.
Elizabeth 3, N. J. (NED 5-48)
Please send me a free copy of your catalog on Flash-O-Lens Illuminated Magnifiers for Industrial Inspection.
Name..... Title.....
Company.....
Address.....
City..... State.....

Mention Item NED-3486 when writing

AMP-O-Matic

New low cost solderless wire terminator. Features quick changeover, utilizing over fifty terminal shapes. For wire sizes 22 to 12.

UP TO 2000 SOLDERLESS ELECTRICAL CONNECTIONS PER HOUR

AMP-O-Matic Details:

Terminals—ring-tongue, spade, splice, disconnect, furnished in pre-formed strip on handy reels.

Compact—small, lightweight, easily moved. Needs only 14" x 21" bench space.

Air-Operated—uses standard shop pressures (60 to 100 p.s.i.).

Readily Convertible—average mechanic can make changeover for various terminal shapes, also necessary maintenance.

Write for full information on how to put the AMP-O-Matic to work in your plant.

AMP AIRCRAFT-MARINE PRODUCTS INC.
1317 North 4th Street, Harrisburg, Pa.
Sole Canadian Representative:
F. Manley & Sons, Ltd., 82 Adelaide St., E., Toronto, Ont., Canada

▲ Mention Item NED-3488 when writing ▲

Outwears Ordinary Shovels 2 to 3 Times!

Yet COSTS NO MORE than an Ordinary Shovel when bought through your nearby Moly Distributor

Recognized the World Over as the Finest Shovel Made

It's always good business to buy the finest . . . especially when you pay no more than for ordinary quality. By purchasing through your conveniently located MOLY DISTRIBUTOR, you get this supreme quality Shovel at ordinary shovel price—an unbeatable investment.

WOOD'S **Moly** REG. U.S. PAT OFF.

Mo-lyb-den-um Alloy
SHOVELS • SPADES • SCOOPS
with Blades of Super-tough, Longer Wearing Mo-lyb-den-um Steel

BLADES of super-strong, tough, long-wearing Moly Mo-lyb-den-um Steel, heat treated and Brinell tested.

CLOSED BACK CONSTRUCTION combines rugged blade strength with light weight and uniform balance . . . Rolled Shoulders stiffen and strengthen the blade and provide a non-cutting edge for the worker's shoe.

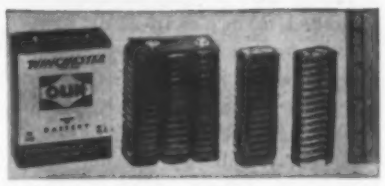
HANDLES of specially selected, thoroughly seasoned XX Grade Northern White Ash.

GET THE FACTS! Send now for this new illustrated folder giving complete information on Wood's "Moly"—the Supreme Quality Shovel of Final-Cost Economy.

THE WOOD SHOVEL AND TOOL CO.
PIQUA, OHIO
Specialists in Shovels, Spades, and Scoops

▲ Mention Item NED-3489 when writing ▲

MINIATURE B-BATTERY



Designed for use in electronic equipment, portable radios and hearing aids, this Winchester - Olin or Bond-Olin miniature dry cell battery is of interlocking construction which eliminates approximately 91 per cent of soldered connections necessary in former models and provides nearly 20 per cent longer life. Unit is made up of multiples of tiny plastics 1½-volt cells which, when assembled, interlock automatically to make electrical connection.

Illustrated 67½-volt B-Battery measures approximately 3¼ x 2¾ x 1¼ inches. Made by **Winchester Repeating Arms Co.**, 275 Winchester Ave., New Haven 4, Conn.

▲ Mention Item NED-3490 when writing ▲

FLOOR MAINTENANCE UNIT

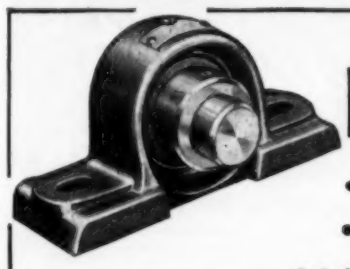
Scrubbing, waxing and polishing of all types of floors and, with special tank, rug and wet scrubbing operations can be performed with this 12-inch Floorite floor machine. It features 12-inch diameter brush flare which cleans up to edges and affords easy maneuverability. Lo-Hite ¼-horsepower motor limits overall height to less than 10 inches. Double tubular handle is adjustable through 90 degrees. Other features are 3-inch self-raising rubber wheels, nonmarking bumper and 35-foot extension cord. Machine is designed to operate on 110/220-volt 60-cycle current, but special motors can be supplied. Made by **United Floor Machine Co.**, 7600 S. Greenwood Ave., Chicago 19, Ill.

▲ Mention Item NED-3491 when writing ▲

TOOL POST GRINDER

Designed for grinding lathe centers, cutters, reamers, dies, rolls and other work on lathes, milling machines and shapers, type 3CA 1/4-horsepower tool post grinder features lightweight aluminum motor housing and fully protected precision ball bearings. Removable tool post shank has round end which permits motor to be set at any angle. Motor rotates at 3600 revolutions per minute and can be operated from any single-phase, 60-cycle, 110 or 220-volt current source. It is supplied with one 6 x 3/8 x 1/2-inch grinding wheel. Available accessories include tooth rest and internal grinding attachment which is 4 inches long and equipped with 1-1/2 x 3/8 x 3/8-inch grinding wheel. Unit is furnished with 10-foot rubber covered cable, attachment plug and switch. Made by **Standard Electrical Tool Co.**, 2488 River Rd., Cincinnati 4, O.

▲ Mention Item NED-3492 when writing ▲



HANDY

. . . any space
. . . any place
. . . any position

FAFNIR Ball Bearing Pillow Blocks LAK type with Mechani-Seals

Handiest bearing unit for a thousand regular and odd jobs. One piece housing and beveled outer ring for self-aligning provides proper support in all directions when mounted in any position. Compactness fits it into cramped spaces. Fafnir exclusive wide inner ring bearing with self-locking collar makes mounting and dismounting a simple, 3-step operation. Mechani-Seals trap in lubricant, lock out dirt. Write for new illustrated folder. The Fafnir Bearing Co., New Britain, Conn.

FAFNIR BALL BEARINGS
MOST COMPLETE LINE IN AMERICA

▲ Mention Item NED-3493 when writing ▲

JOHNSON ALL-WELDED CLAMSHELL BUCKETS

1. Modern streamlined design, all-welded.
2. Fill easily with heaped loads.
3. Needle-bearing mounted closing sheaves.
4. Large, protected sheaves, less cable and sheave wear.
5. Free-running cable action, long cable life.
6. Sealed bearings give long-life smoothness.
7. Hinge stops and alignment bars maintain easy action.

Increase production and reduce bucket-costs with Johnson Clamshell Buckets. Write for full information.

THE C. S. JOHNSON COMPANY
KOEHRING SUBSIDIARY • CHAMPAIGN, ILLINOIS
J777

▲ Mention Item NED-3494 when writing ▲

BE SKEPTICAL!

Make us PROVE this conveyor can CUT COSTS as it SPEEDS PRODUCTION

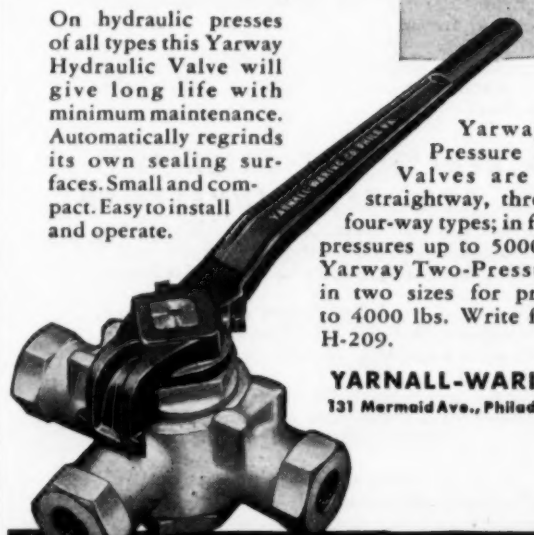
Yes, we stand ready to present positive proof that conveyorized handling with Steel-Parts STEEL BELT Conveyor will slash costs—step-up production. Mr. H. W. Ziegler, Factory Supt., at the Ed Roos Co., reports efficiency up 30% . . . unit cost down 10% . . . machine capacities increased 65%! And that's only one among dozens of reports testifying to the amazing results obtained with durable, rugged all-steel conveyors, pre-engineered at the factory for your specific job. Let Steel-Parts engineers make recommendations to increase the efficiency of your materials handling methods.
Steel Parts Mfg. Co., 228 S. Morgan St., Chicago, Ill.

STEEL-PARTS MANUFACTURING COMPANY
Division of Blackstone Manufacturing Company

▲ Mention Item NED-3495 when writing ▲

The Higher the Pressure ...the Tighter the Valve

On hydraulic presses of all types this Yarway Hydraulic Valve will give long life with minimum maintenance. Automatically regrinds its own sealing surfaces. Small and compact. Easy to install and operate.

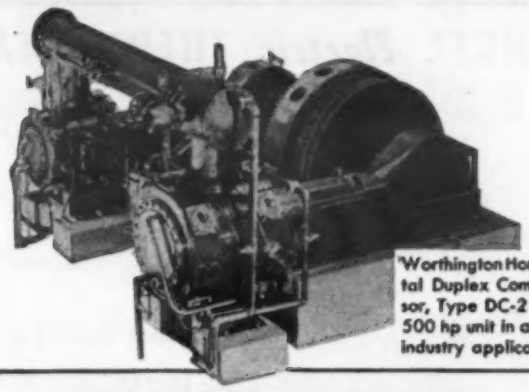


Yarway Single-Pressure Hydraulic Valves are made in straightway, three-way and four-way types; in five sizes for pressures up to 5000 lbs. Also Yarway Two-Pressure Valves in two sizes for pressures up to 4000 lbs. Write for Bulletin H-209.

YARNALL-WARING CO.
131 Mermaid Ave., Philadelphia 18, Pa.

YARWAY
Improved Type
HYDRAULIC VALVE

▲ Mention Item NED-3496 when writing ▲



Worthington Horizontal Duplex Compressor, Type DC-2 . . . a 500 hp unit in a steel industry application

IT WORKS HARD
but never gets hot!

Typical of the way Worthington builds top efficiency into compressors are the precautions taken to cool the DC-2 line of hard-workers ranging from 75 to 3000 hp. Water jacketing around the entire cylinder and in the heads keeps temperature — and, therefore, power consumption — at a minimum. Valves receive cooling from both cylinder and head jackets. Feather* Valves minimize air or gas friction. Bulletin L-675-B1A gives other reasons why *there's more worth in Worthington. Worthington Pump and Machinery Corporation, Compressor Division, Buffalo, New York.*

*Reg. U. S. Pat. Off. K7-4A

No Other Compressor Will Outperform A Worthington

WORTHINGTON

▲ Mention Item NED-3497 when writing ▲

Increased Insulation
BETTER CONNECTIONS
JONES BARRIER TERMINAL STRIPS

Leakage path is increased — direct shorts from frayed terminal wires prevented by bakelite barriers placed between terminals. Binder screws and terminals brass, nickel-plated. Insulation, black molded bakelite. Finest construction. Add much to equipment's effect.

Jones Means Proven Quality

Illustrated: Screw Terminals — Screw and Solder Terminals — Screw Terminal above Panel with Solder Terminal below. Every type of connection.

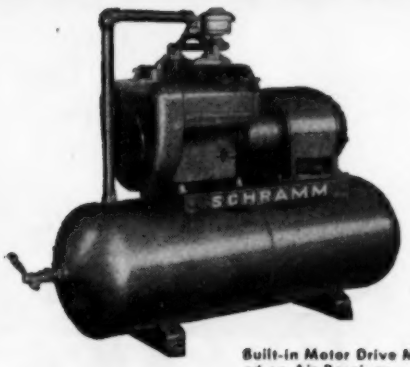
Six series meet every requirement: No. 140, 5-40 screws; No. 141, 6-32 screws; No. 142, 8-32 screws; No. 150, 10-32 screws; No. 151, 12-32 screws; No. 152, ¼-28 screws.

Catalog No. 16 lists complete line of Barrier Strips, and other Jones Electrical Connecting Devices. Send for your copy.

HOWARD B. JONES DIVISION
Cinch Mfg. Corp.
2460 W. GEORGE ST. CHICAGO 18, ILL.

▲ Mention Item NED-3498 when writing ▲

SCHRAMM
AIR COMPRESSORS



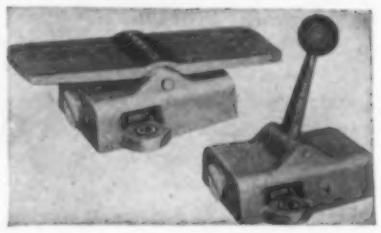
Built-in Motor Drive Mounted on Air Receiver

A complete combination that represents the last word in compressor design and economical twenty-four hour per day service. Mounted on a 20"x60" regular A.S.M.E. horizontal tank.

SCHRAMM INC. THE COMPRESSOR PEOPLE WEST CHESTER PENNSYLVANIA

▲ Mention Item NED-3499 when writing ▲

AIR CONTROL VALVES



Relatively low in cost and made of noncorrosive materials, these hand or foot-operated air valves are designed for accurate control of small, single-acting and double-acting cylinders on continuously operated machines. Valves are available in two types, model HF-3 three-way and model HF-4 four-way, both designed for locking or nonlocking service and with neutral position. Units for hand or foot operation are available in ¼-inch size. Made by **Airmatic Valve, Inc.**, 1641 E. 40th St., Cleveland, O.

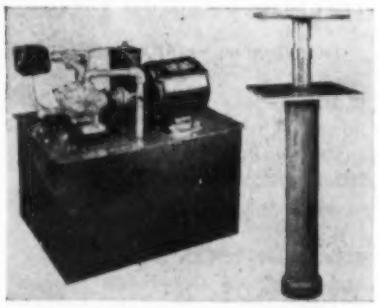
▲ Mention Item NED-3500 when writing ▲

TIME-LAG THERMAL FUSE

Long time-lag inherent in triple-duty Saf-T-Lag thermal fuses eliminates needless 'blowing' and delays action when harmless overloads or starting inrushes occur, yet fuses meet requirements for short-circuit protection. Internal temperatures are relatively cool because thermal connection breaks circuit when temperature of 280 F is reached. Features include identical ends on current-carrying copper fuse strips which prevent unequal heating, copper alloy trigger spring and low resistance. Made by **Jefferson Electric Co.**, 903 S. 25th St., Bellwood, Ill.

▲ Mention Item NED-3501 when writing ▲

HYDRAULIC LIFT

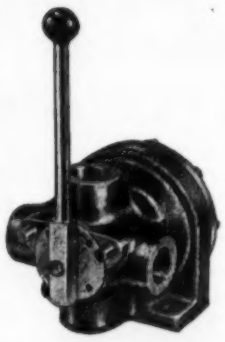


Loaded skids, sheet stock, packaged goods and similar loads can be elevated or lowered through vertical distance of 36 inches by means of this Samson Senior hydraulic hoist which consists of hydraulic cylinder and independent power unit. Hoist is composed of 6-inch steel cylinder fitted with piston and rod and 18-inch diameter top. It can be mounted in concrete floor, attached to joists or set on I-beams bolted through floor. Any type of control valves can be employed. Pumping unit consists of tank, motor-driven pump, pressure controls, piping, motor switch and, if desired, surge tank to smooth out pressure in delivery line. Made by **General Sales & Engineering Co.**, 7358 N. Clark St., Chicago 26, Ill.

▲ Mention Item NED-3502 when writing ▲

VALVE . . . 5000 PSI heavy-duty 4-way Selector . . . 1½" pipe size

Source: SAVAL COMPANY
1911 E. 51st St., Los Angeles 11, Calif.



Extremely low handle load, leak-proof design and long service life are outstanding features of SAVAL'S No. 8298 heavy-duty, 5,000 PSI, 4-way selector valve.

Designed for service with oil, water or gas for pressures up to 5,000 PSI the valve has a rugged bronze body with heavy-duty construction throughout. Integral stops and balanced detents assure smooth, trouble-free operation.

It employs SAVAL'S patented "Shear-Seal" principle. This provides a metal-to-metal seal that is self-aligning and automatically compensates for wear. Not critical to dirt because foreign materials are wiped away instead of lodging between the sealing surfaces. Only one basic moving part. May be serviced without removing from lines. Requires no lubrication or packing adjustment throughout its life. Good for 1,000,000 cycles under most severe and exacting conditions.

Send for details on No. 8298 or for catalog on complete line of industrial valves. SAVAL specializes in furnishing valves to meet your specific requirements. On specials, please indicate pipe size, operating pressure and fluid used. Quick service from regional representatives.

▲ Mention Item NED-3503 when writing ▲

"New Process"

● PUNCHES ● DIES ● RIVET SETS

have served the railroad industry for over thirty years. You can purchase these tools with confidence, and know your shop can depend upon maximum performance.

We also specialize in punches and dies for TIE PLATE and SPLICE BAR, and will be glad to receive your specifications. *Write today for your copy of Catalog No. 46.*

GEO. F. MARCHANT COMPANY
1420-34 So. ROCKWELL ST., CHICAGO 8, ILL.

▲ Mention Item NED-3504 when writing ▲

MORE REFRIGERATION WITH YOUR PRESENT COMPRESSOR

NIAGARA AERO-PASS CONDENSER

Saves 15% to 35% of Power

● Reducing head pressure from 195 lbs. to 165 lbs. adds extra capacity to your refrigeration system.

Users of the NIAGARA AERO-PASS Condenser gain this advantage, saving 15% to 35% of power, and 95% of water consumption.

NIAGARA patented "Balanced Wet-Bulb Control" provides constant year 'round operation at the minimum head pressure, without attention. Users say it saves half the trouble of operating a refrigeration system.

These savings are permanent, because the NIAGARA patented "DUO-PASS" pre-cooling coil prevents clogging of condenser tubes with scale.

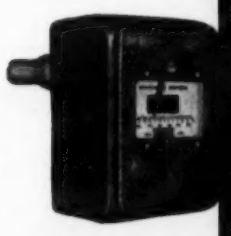
Patented NIAGARA "Oilout" removes oil and sludge from the refrigerant at the most effective point, keeping the system clean and at peak operating efficiency.

Write for Bulletin 103ED

NIAGARA BLOWER COMPANY
Over 30 Years' Service in Air Engineering
405 Lexington Ave., New York 17, N. Y.
Field Engineering Offices in Principal Cities

▲ Mention Item NED-3505 when writing ▲

New
L-578 SERIES
IMMERSION THERMOSTATS



8 FEATURES

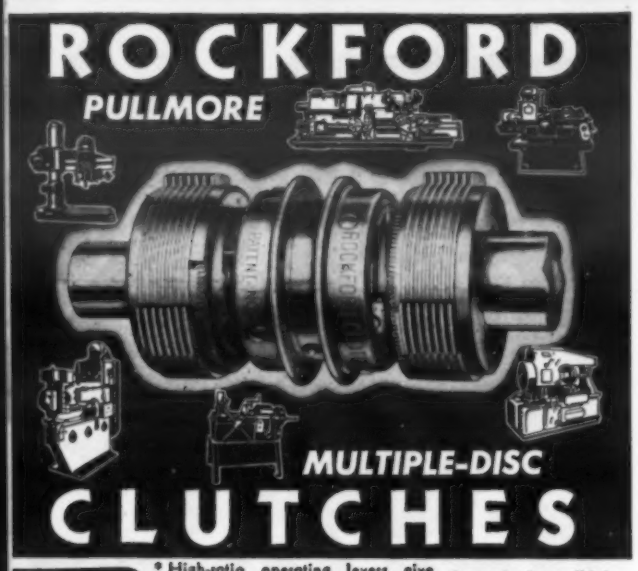
1. **ACCURATE AND POSITIVE IN ACTION.** The result of design-simplicity.
2. **VISUAL LEVELING INDICATOR.**
3. **COMPLETE SELECTION OF TEMPERATURE RANGES AND SWITCH COMBINATIONS.** Models to meet every requirement.
4. **FAST REACTION TO LIQUID TEMPERATURE CHANGE.** Two-inch well provides large heat-exchange area for direct and proximity contact with temperature-sensitive element.
5. **CLOSE TEMPERATURE DIFFERENTIAL.** Approximately 10° F. in most installation conditions.
6. **TEMPERATURE SETTING EASILY CHANGED.** Just one external adjustment screw to turn.
7. **AMPLE CURRENT CAPACITY FOR USE IN ALL STANDING CONTROL SYSTEMS.** Up to 15 Amp. switch rating.
8. **MERCURY TYPE SWITCH.** Dust-proof, tamper-proof, impervious to corrosive atmospheric conditions and "pitting" characteristics.

FOR COMPLETE SPECIFICATIONS REQUEST BULLETIN SDL-32R-2.

GENERAL CONTROLS
801 ALLEN AVENUE GLENDALE 1, CALIF.
Manufacturers of Automatic Pressure, Temperature and Flow Controls
BRANCH OFFICES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

▲ Mention Item NED-3506 when writing ▲

ROCKFORD
PULLMORE



MULTIPLE-DISC
CLUTCHES

COMPACT DESIGN
HIGH TORQUE
HIGH-RATIO LEVERS
POSITIVE NEUTRAL
PRECISION BUILT
LONG WEAR LIFE
EASY ADJUSTMENT

* High-ratio operating levers give PULLMORE clutches powerful engagement with slight axial pressure and short movement of the shifter spool; consequently operation is quick and easy. Declutching is equally fast and positive. The shifter spool has an extra deep slot which is hardened and ground. This prolongs the life of the clutch, reduces wear on the shifter fork and holds run-out to a minimum.

Send for This Handy Bulletin

Shows typical installations of ROCKFORD CLUTCHES and POWER TAKE-OFFS. Contains diagrams of unique applications. Furnishes capacity tables, dimensions and complete specifications.

ROCKFORD CLUTCH DIVISION BORG-WARNER
312 Catherine Street, Rockford, Illinois, U. S. A.

Mention Item NED-3507 when writing

The NATIONAL ELECTRIC
"800" Floor Box
for convenience outlets in the floor

Steel for permanence—Grounded for safety

- Provides auxiliary outlets, in isolated areas for: Telephone, Light, Power and Signal Systems.
- Especially suited for: Banks . . . Hotels . . . Commercial Buildings . . . Offices . . . Lobbies . . . Open Aisles . . . Show Windows.
- May be used with any steel conduit or steel underfloor duct systems.
- Two types of fittings:

Neat, waterproof rubber sheath and plug for intermittent service—Displays . . . Fans . . . Telephone connections . . . Spotlights . . . Signal systems.

Deluxe, streamlined fittings, brushed brass, strong and durable for permanent or semi-permanent wiring.

- Approved by Underwriters' Laboratories, Inc.

Let us send you illustrated folder

NATIONAL ELECTRIC PRODUCTS WIRING SYSTEMS WIRES AND CABLES

National Electric Products Corporation
Pittsburgh 30, Pa.

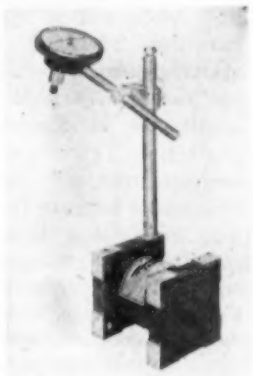
Mention Item NED-3508 when writing

POWER TRACTOR-SHOVEL

Featuring hydraulic bucket control, model HF ¾-cubic yard capacity Payloader tractor shovel has wide application for earth-moving and materials handling in public works, construction, mining and industrial fields. Raising, lowering, dumping and closing of bucket are controlled by means of finger-tip actuated hydraulic power. Bucket can be dumped gradually or instantaneously as desired and can be closed immediately by same hydraulic cylinder. This feature increases speed and ease of operation because need to lower bucket to ground before raising it is eliminated. Machine is relieved of shock and unnecessary wear. Made by **Frank G. Hough Co.**, 803-L Sunnyside Ave., Libertyville, Ill.

Mention Item NED-3509 when writing

MAGNETIC GAGE HOLDER



Any dial indicator or height gage can be attached at most desirable location on lathe, milling machine, shaper or other machine tool with this permanent magnet type Minute Man holder. Alnico base has 40 to 50-pound grip on all four sides. Interchangeable 7/32 and 5/16-inch brass shafts provide for easy mounting of indicator. Shaft socket holes in base are tapped with 12-24 thread to accommodate standard or special length shafts. By attaching long handle, base can also be used to retrieve ferrous parts from floor or relatively inaccessible locations. Made by **du Mont Corp.**, Greenfield, Mass.

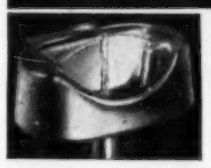
Mention Item NED-3510 when writing

INDUSTRIAL TRUCK

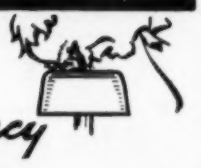
Designed especially for loading dies and molds into presses, this 4000-pound capacity Worksaver 'walkie' industrial truck picks up die or mold from storage, transports it to press, lifts it level with platen and mechanically loads it into position for use. Features which make truck applicable for these operations are three-section roller platform, ratchet-actuated cable and sheave self-loading arrangement, and high-lift mechanism. Truck is also suitable for handling heavy machinery and large awkward parts, and it can be used to advantage in unloading heavy cases from street trucks. Made by **Yale & Towne Mfg. Co.**, 4537 Tacony St., Philadelphia 24, Pa.

Mention Item NED-3511 when writing

SAVE THEIR EYES!



New Emergency



EYE WASHING FOUNTAIN

Acids, caustics, harmful vapors or irritating dusts in the eyes must be washed out immediately with water to prevent serious eye damage.

Your Employees' Eyes are Your Liability—Protect Them!

Leading industrial eye doctors recommend at least 5 minutes washing at the scene of the accident. The B & A Eye Washing Fountain meets this vital need.

EMERGENCY SHOWER

When a workman is splashed with corrosive chemicals or clothing is on fire, an instantaneous deluge of water may save a life or prevent serious burns.

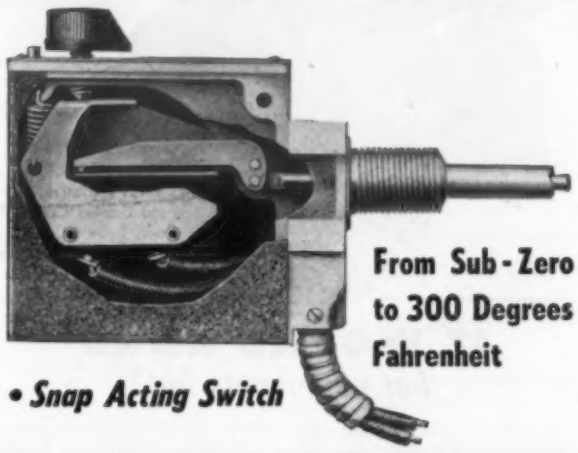
The B & A Emergency Shower provides 30 to 40 gallons per minute immediately, soaking every part of the body. Chain valve—hands free to remove clothing.

Write for Complete Details

BENSON & ASSOCIATES, INC.
ACCIDENT PREVENTION ENGINEERS
534 S. CLARK ST. • CHICAGO 5, ILL.

Mention Item NED-3512 when writing

BONDEE *Electric* THERMOSTAT



From Sub-Zero to 300 Degrees Fahrenheit

• *Snap Acting Switch*

Close Control of Temperature

of liquids, gases or air. Is sensitive to temperature change of a fraction of a degree. Capacity 10 Amp. 125 Volts A.C. *Rugged Construction. Easily Installed.*

Write for Descriptive Folder.

ALLOY BELLOWS ENGINEERING CO.
935 Greyton Rd. • CLEVELAND 12, OHIO

Mention Item NED-3513 when writing

MADE TO ORDER

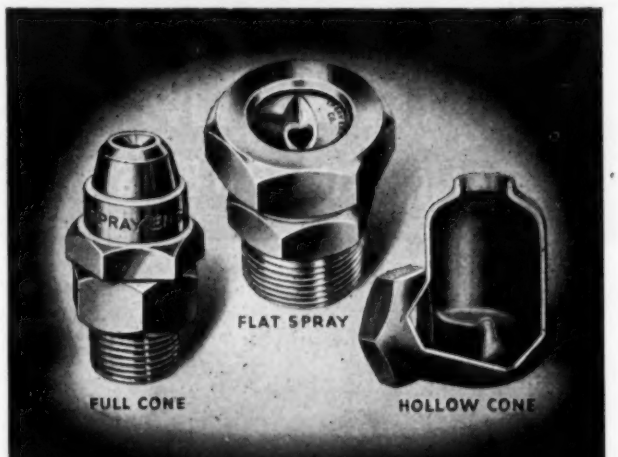
For special flat metal or odd shaped parts as shown, we maintain a special department where such parts are built to your specifications.

Pressed and sheared to exact dimensions, with smooth edges. Odd shaped parts reproduced faithfully from sample or sketch.

Special equipment and 72 years of experience assure satisfaction.

The Torrington Company
SPECIALTY DEP'T.
Torrington, Conn., U.S.A.

Mention Item NED-3514 when writing



SPRACO NOZZLES

Write for NOZZLE CATALOG *to*
SPRAY ENGINEERING CO.
106 CENTRAL STREET • SOMERVILLE 45, MASS.

Mention Item NED-3515 when writing

Exceptional value is found in the new EEMCO gasoline engine. It is built to answer demands for light weight, easy starting and smooth operation. Made to meet all precision standards, here is an engine which can be depended upon for certain and continuous performance.

Write or wire for details.

EASY STARTING

For
- LAWN MOWERS
- WASHING MACHINES
- SPRAYERS - PUMPS
- MILKING MACHINES
- GENERATORS
- PORTABLE TOOLS

and many other uses

EEMCO Erie Engine & Mfg. Co.
953 EAST 12th ST., ERIE, PENNA.

Mention Item NED-3516 when writing

6 reasons why

WIDE BASE

GENERAL INDUSTRIAL PNEUMATICS

move loads faster, cheaper

SEE THE REASON

Bigger Air Volume makes the difference

Since General Industrial Tires, mounted on General's exclusive wide-base rims, give you a greater volume of air per tire . . . you can carry a greater load at the same pressure or the same load at lower pressure.

1 **CARRY HEAVIER LOADS**—Greater air volume permits larger loads without damage to floors or tires.

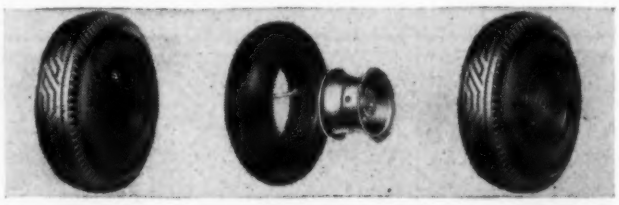
2 **CUSHION THE LOAD**—Lower air pressure provides a softer ride, reduces breakage and spillage.

3 **EASIER TO CHANGE**—Tires can be changed in a few minutes. Money saved on labor is money in your pocket.

4 **RUN BETTER AT HIGHER SPEEDS**—Wide-base rims give greater stability, less sway, better stopping.

5 **LAST LONGER**—Built on the same machines, and of the same Top Quality materials as famous General Truck Tires.

6 **REDUCE WORKER'S FATIGUE**—Trucks on Generals move easier, with less effort, less energy or less fuel. Jolts and jars are reduced to a minimum.



COMPLETE FACTORY ASSEMBLED UNITS

You can order General Industrial Pneumatics in complete units of tire, tube and wheel all inflated and ready for installation.

Size for size, these mighty midgets of the General Tire line, match their "big brothers" in strength, long wear and all around, money saving ruggedness. Try them. You'll find you can rely upon them.

New brochure tells how to move loads and mobile equipment cheaper and faster. Write Dept. 4, The General Tire & Rubber Co., Akron, Ohio.

THE GENERAL TIRE & RUBBER CO.
Akron, Ohio

The GENERAL TIRE

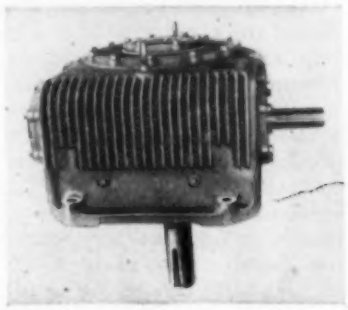
Mention Item NED-3517 when writing

BOTTLED-WATER COOLER

Providing cup service from bottled water, this cooler has capacity of 3 gallons per hour cooled to 50 F in room with temperature of 90 F. Either hermetically sealed or open type condensing units can be supplied. Cooler and storage tank are constructed of 18-8 stainless steel, and copper refrigeration coils are hot-metal bonded to stainless steel water storage tank to provide maximum cooling efficiency. Cabinet is finished in attractive baked metal-base enamel to harmonize with any surroundings. Cooler meets requirements of Bureau of Standards. Made by **Temprite Products Corp.**, 51 Piquette Ave., Detroit 2, Mich.

Mention Item NED-3518 when writing

RIGHT-ANGLE SPEED REDUCER



Standard line of 7-inch center distance, series 7700 right angle speed reducers is available in ten ratios ranging from 5:1 to 70:1. Three types composing line are HU-7700 with pinion under gear, HO-7700 with pinion over gear and HV-7700 with gear shaft vertical. All ratios and types are available with double extended gear shafts or double extended pinion shafts. Reducers have mechanical horsepower ratings from 1.56 at 100 revolutions per minute for 70:1 ratio to 94.2 horsepower at 2400 revolutions per minute for 5:1 ratio. Cooling fins are cast integrally with housing for low operating temperatures. Made by **Michigan Tool Co.**, Cone-Drive Div., 7204 E. McNichols Rd., Detroit 12, Mich.

Mention Item NED-3519 when writing

PERSPIRATION RETAINER

Providing comfort for men working in extremely hot or humid locations, this Coolband perspiration retainer absorbs perspiration and creates cooling effect. Retainer prevents perspiration from dropping into eyes and on glasses or goggles. It is light in weight and clings gently to head without binding. By hand squeezing in soapy water, band can be cleaned thoroughly, or it can be sterilized by same method using customary germicidal solutions. Made by **Mine Safety Appliances Co.**, 220 N. Braddock Ave., Pittsburgh 8, Pa.

Mention Item NED-3520 when writing

THE BELT METHOD IS THE BETTER METHOD

. . . and the Better Belt is METALITE*!

Back of the brilliant success story of the backstand-belt method, lies the equally brilliant production record of Behr-Manning Metalite* Cloth Backstand Belts for grinding, polishing and finishing. For the metal finishing industry has had to be shown the advantages of the belt method by competitive tests — tests which so consistently showed production increases of 2 to 4 times the old set-up wheel method. Write or wire or phone us for your own free demonstration of the belt method with better Metalite Cloth Belts.

* *Reg. U. S. Pat. Off.*

BEHR-MANNING · TROY, N. Y.
(DIVISION OF NORTON COMPANY)

Mention Item NED-3521 when writing

NEW
HUMIDITY INDICATOR
by Weston

- Quick-reading
- Convenient
- Accurate

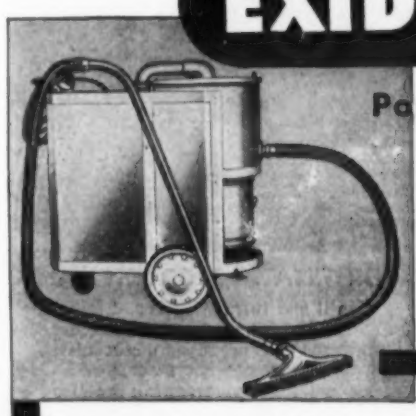
MODEL 2201

Simplified Slide Rule Calculator gives relative humidity reading directly. Entire unit ruggedly constructed of metal, featuring two Weston all-metal dial-type thermometers, providing readings accurate within ±1% for general conditions. Ask your local Weston representative, or write for literature . . . Weston Electrical Instrument Corporation, 663 Frelinghuysen Avenue, Newark 5, New Jersey.

WESTON Instruments

Mention Item NED-3522 when writing

EXIDUST



Portable . . . Powerful VACUUM Cleaning UNIT

● as easy to use as a home vacuum cleaner — EXIDUST has suction so powerful it even picks up nuts and bolts. This compact giant of a cleaner grabs every trace of sand, filings, dust—all forms of dirt and foreign matter. Use it for "dry scouring" of floors, walls, pipes, machinery, furniture . . . anywhere in the plant, shop, or institution. Dust-proof receptacle cleans the air—extracts all dust—is easy to empty.

If you have cleaning problems, get full information on EXIDUST . . . portable or stationary vacuum system. For bulletin on both types, write:

ALLEN - BILLMYRE DIVISION
LAMSON CORPORATION
503 Lamson St., Syracuse 1, N. Y.

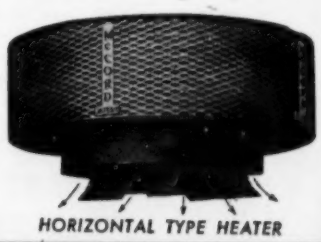
Mention Item NED-3523 when writing

Better Heat Distribution WITH McCORD Unit Heaters

VERTICAL TYPE HEATER

More Heat . . . Better Distribution

More heat, better distribution is the answer to any heating problem. McCord, because there is a model and type to meet each particular condition, will do a better heating job. Every improvement that engineers and the experience of many users could suggest is incorporated in the improved models of McCord Unit Heaters. Due to the design and careful attention to balance a new degree of quietness has been attained. The scientifically designed spiral fin tube heating surface provides maximum heat transfer capacity.



HORIZONTAL TYPE HEATER

McCORD CORPORATION
2580 E. Grand Blvd.
Detroit, Mich.

Specify McCORD ON YOUR NEXT JOB

Mention Item NED-3524 when writing

Jet Engines Use Welded Heat Resisting

STAINLESS STEEL RINGS by AMERICAN WELDING

It takes more than steel and a flash welder to make "jet" rings... it takes real "know-how" plus high quality workmanship and our Controlled Technique. American-Welded Rings by the thousands now fly the sky-ways...repeat orders are now in production. This is but one application of the many ferrous and non-ferrous welded products we manufacture. You'll be ahead if you use the American Welding process of fabrication. An American Welding representative will be glad to explain. Send for literature.

THE AMERICAN WELDING & MANUFACTURING CO.
170 DIETZ ROAD • WARREN, OHIO

Mention Item NED-3527 when writing

FOR GREATER PRODUCTIVITY

You'll find this AMES No. 1 DIAL COMPARATOR a great aid in meeting your increased production schedules. It's *accurate*, first,—but *ease*, *impersonality*, and *speed* in measuring are also very evident. And they'll all be evident for thousands of readings—giving you highest quality measuring with the greatest possible economy.

Specifications: Capacity 2", Table diameter 2", Height 9½", Throat 1½", Weight 4 lbs.

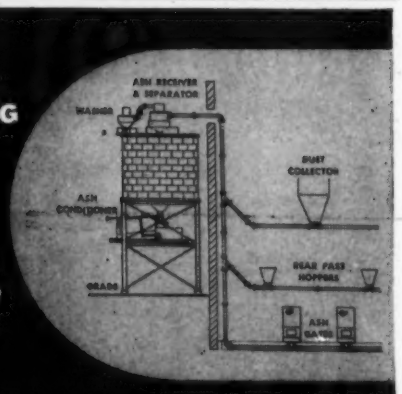
Ames indicators in any size or dial graduation may be attached. The No. 211 shown is graduated in .0001", has dial reading 0–5–0, and a range of .025".

For additional information, address our Home Office: 34 Ames Street, Waltham 54, Mass.

B. C. AMES CO.
Mfr. of Micrometer Dial Gauges
Micrometer Dial Indicators
Representatives in principal cities

Mention Item NED-3528 when writing

Cut ASH HANDLING *Costs* With Modern Ash Removal... The Beaumont *"Vac-Veyor"* System



THE ashes, siftings, soot, and dust are vacuum conveyed through a pipe from ash pits, stack, etc. to an ash receiver and separator at the top side of a silo. One man operates the system—keeps your plant cleaner with less labor. Initial and operating costs are rock-bottom—maintenance remains very low.

One contract—one responsibility—for Bulk Handling Systems.

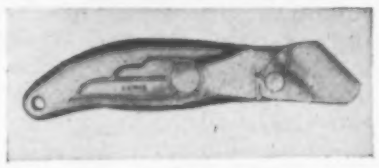
Write for more information to:

BEAUMONT BIRCH COMPANY
1514 RACE STREET • PHILADELPHIA 2, PA.

Designers Manufacturers Erectors
COAL AND ASH HANDLING SYSTEMS

Mention Item NED-3529 when writing

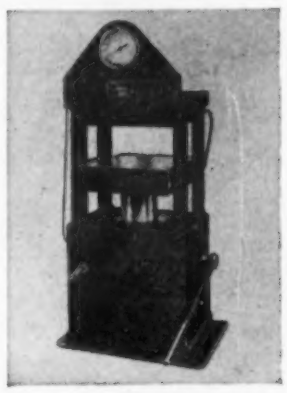
PROTECTED-BLADE KNIFE



Protected by steel guard that covers blade when it is not in use, Lewis Automatic Safety Cutter affords complete protection to user and can be carried in pocket safely. When handle is gripped and blade pressed against work, safety guard springs back out of way, and when pressure is released, guard covers blade automatically. Tool consists of die-cast zinc handle and steel knife guard. Each tool is supplied with extra supply of blades. Made by **Lipton Mfg. Co.**, 52 W. Houston St., New York, N. Y.

Mention Item NED-3530 when writing

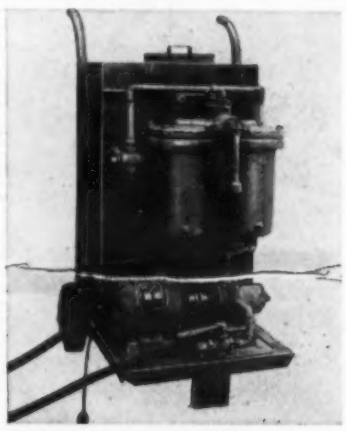
30-TON HYDRAULIC PRESS



Equipped with electrically heated, thermostatically controlled platens, this 30-ton hot plate hydraulic press is designed for plastics laminating, plastics and rubber molding, forming, drawing, embossing, hobbing and other similar operations. Dual pressure pump provides operating pressure for totally enclosed hydraulic system. Compactness of press makes it suitable for bench use. Platen size is 12 x 12 inches, daylight opening is 10 inches, stroke is 6 inches and ram diameter is 5 inches. Made by **M & N Machine Tool Works, Inc.**, 130 Orono St., Clifton, N. J.

Mention Item NED-3531 when writing

PORTABLE OIL FLUSHER

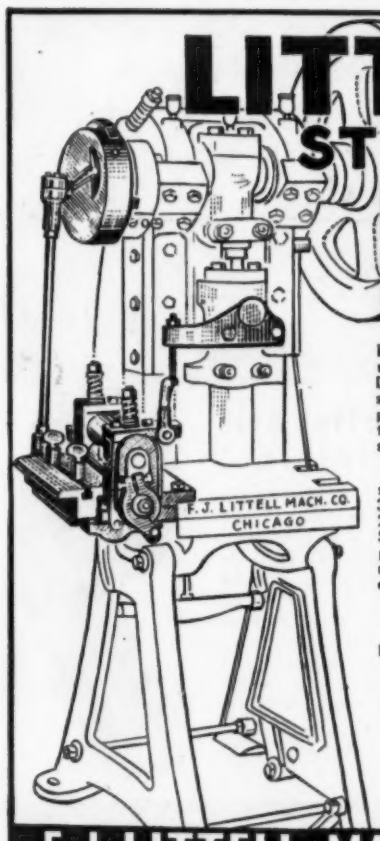


Internal cleaning of machinery without disassembly is accomplished by means of this portable Lubey oil flushing unit. Flusher utilizes high pressure nozzle to force organic solvents, kerosene or lubricating oil through inspection or clean-out openings to loosen dirt, sludge or wear particles or to force out water. By means of safety control device, flow can be regulated to suit needs of cleaning operation.

Unit consists of storage tank, pump and driver for actuating fluid, filter for collecting refuse cleaned from various mechanisms, hoses, piping, valves and safety pressure control. It can be used also as simple lubricating oil circulating system. Heaters or coolers for compounds are available as optional equipment. Made by **Fox River Tool Co.**, Lubrication Div., Menasha, Wis.

Mention Item NED-3532 when writing

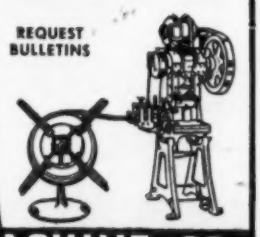
LITTELL STYLE "M" ROLL FEEDS



LITTELL Roll Feeds are made in Single- and Double - Roll types, for stamping, blanking, cupping and drawing operations—for use on O.B.I. or straight-sided presses.

Models for handling stock up to .156" thick by 30" wide. Speeds, 50 to 200 strokes per minute. Stock advance up to 50" per stroke. Littell also makes other press-room equipment.

REQUEST BULLETINS



F.J. LITTELL MACHINE CO.
4161 RAVENSWOOD AVE. CHICAGO 13, ILL.

Mention Item NED-3533 when writing

NEW "Weld-Bilt" PALLET-TYPE HYDRAULIC LIFT TRUCK

... MOVES PALLETIZED LOADS EASIER — FASTER — MORE ECONOMICALLY

• An important time-saver and labor-saver in materials handling, this WELD-BILT Pallet Lift truck is built for extra strength, extra durability and long service. Designed for easy mobility with sealed ball bearings throughout, it will accommodate single or double faced pallets with its low, flat, divided platform. The hydraulic unit, with a capacity of two tons, is mounted in a shockproof position, and is easily operated through the "multi-stroke" action of the steering handle. Other features include: Front Wheel Equalizer for extra stability on uneven floors — Safety handle with "Instant Free" release — Accelerator Type Lowering Foot Pedal—completely arc-welded construction.

Your truckers will enjoy using this new easy-moving WELD-BILT . . . and you'll like its "service-free" dependability and long life—a combination that makes it one of your best investments in factory equipment. Write for specifications and prices.

WELD-BILT Pallet Truck Available in varying sizes for your needs.

"Weld-Bilt" PRODUCTS

WEST BEND EQUIPMENT CORP.
220 WATER STREET • WEST BEND, WISCONSIN
MATERIALS HANDLING ENGINEERS

Mention Item NED-3534 when writing

USG *ANNOUNCES—* **NEW AND IMPROVED REFRIGERATION GAUGES**

FROSTLINE FOR REFRIGERATION

FEATURES
- Adjustable Pointer
- Removable Screw Check
- LOW SIDE Protection—200 lbs.
- Luminous Dial
- Beryllium Copper Bourdon Tube

Every Service Engineer will want a set of USG's new Frostline Gauges. "*High Side*," and "*Low Side*" gauge has adjustable pointer for easy resetting. *Low Side* gauge protected to maximum working pressure of Freon 12. Write for free literature today.

UNITED STATES GAUGE
Division of American Machine and Metals, Inc. Sellersville (1), Pa.

Mention Item NED-3535 when writing

Read All About it!

The Type "HCF"* Tube for use with Rotameters is described in new Supplement 3 (Bulletin 18-R)—just off the press. It describes the construction of the "HCF" tube—shows why this tube permits metering of opaque fluids. In addition, the type "HCF" tube increases Rotameter capacity without interfering with high performance, and permits use of various rotor designs.

But, read *all* about it—write TODAY for Supplement 3 (Bulletin 18-R). It contains complete details.

*High Capacity Fluted

Schutte and Koerting Co.
1177 THOMPSON STREET, PHILADELPHIA 22, PA.

Mention Item NED-3536 when writing

SIMPLIFY truck battery charging...

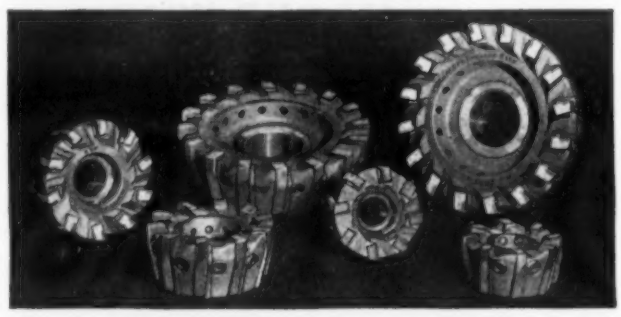
Save long hauls and lost time in keeping truck batteries charged and on the job! New Westinghouse Rectox rectifiers can be set down anywhere in the plant where trucks can park. No special foundations or wiring. Safe, dependable operation. Get full details in Booklet B-3642. Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh, Pennsylvania. J-21398

Westinghouse
PLANTS IN 25 CITIES ... OFFICES EVERYWHERE

RECTOX COPPER-OXIDE RECTIFIERS

▲ Mention Item NED-3537 when writing ▲

MORE CHIPS..LONGER LIFE
from KEARNEY & TRECKER
CSM and FULL-BACK
FACE MILLING CUTTERS
for All Standard Milling Machines



IN FOLLOWING SIZES — RIGHT OR LEFT HAND

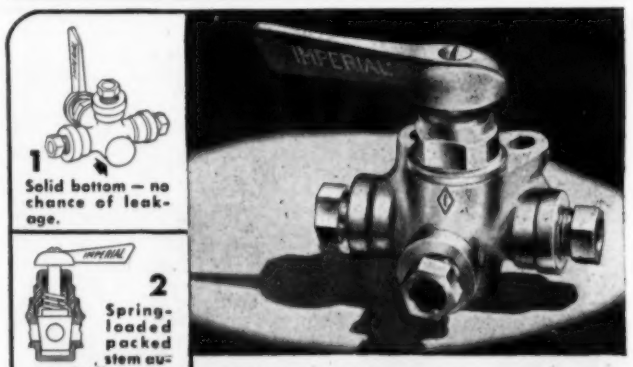
CSM ALL PURPOSE CARBIDE CUTTERS
4" DIA. 4 TOOTH TO 16" DIA. 32 TOOTH

FULL BACK CUTTERS
3" DIA. 8 TOOTH TO 18" DIA. 38 TOOTH WITH • STELLITE • HIGH-SPEED STEEL • OR TUNGSTEN CARBIDE INSERTED TOOTH BLADES

For complete information on Cutters, Arbors and other standard Milling Machine Attachments write for Catalogs C-10C and C-11.

KEARNEY & TRECKER CORPORATION
6740 W. NATIONAL AVENUE, MILWAUKEE 4, WISCONSIN

▲ Mention Item NED-3538 when writing ▲



1 Solid bottom — no chance of leakage.

2 Spring-loaded packed stem automatically maintains proper tension on packing and plug at all times.

3 Indicating "click" tells when handle is in full open or closed position on 3-way types. 2-way types have positive stop.

4 Convenient mounting bracket.

IMPERIAL HI-DUTY SHUT-OFF VALVES

An extra sturdy shut-off valve that will give you better performance for liquids, gases, vacuum—low and medium pressure applications. Provides real protection against leakage. Assures positive shut-off. Body bronze; plug nickel silver.

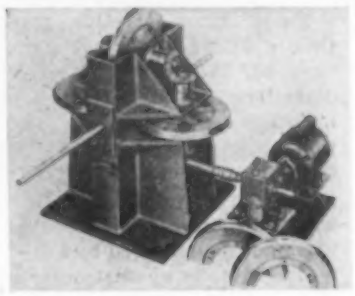
Note advantages illustrated at left. 2-way, 3-way, and 4-way patterns. Available in a wide range of tubing and pipe thread sizes from 1/8" to 1/2" O.D., 1/8" to 3/8" I. P. T.

Ask for Catalog No. 350
See Your Industrial Supply House
THE IMPERIAL BRASS MFG. CO.
510 South Racine Avenue, Chicago 7, Ill.

IMPERIAL
Tube Fittings • Tube Working Tools
Valves • Service Aids

▲ Mention Item NED-3539 when writing ▲

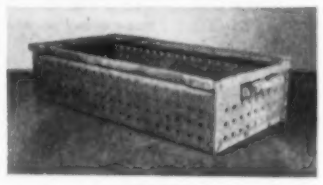
HIGH SPEED MARKING DEVICE



Master Marker universal machine stamps one, two, three or four sides of seamless and lightwall aluminum, copper and brass tubing on same run at rate up to 300 feet per minute. It handles bars as well as tubing in round, square, hexagon and other shapes in sizes from 3/8 to 2 inches in diameter. Powered by 1/3-horsepower motor, this portable unit can be used for production or job work. Segments are replaceable, and type is interchangeable. Character size depends on requirements of product to be marked. Made by **Pannier Bros. Stamp Co.**, 301 Pannier Bldg., Pittsburgh 12, Pa.

▲ Mention Item NED-3540 when writing ▲

PERFORATED STEEL BOX

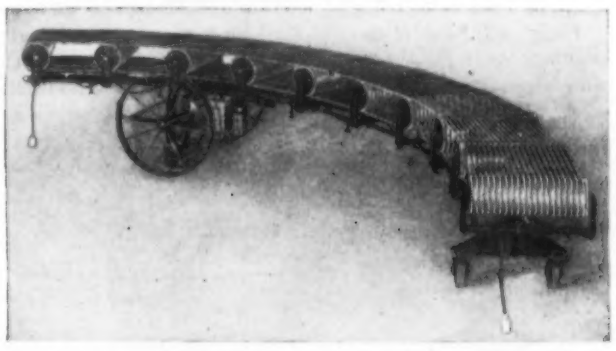


Constructed of heavy duty steel this shop box with perforated bottom and sides is designed for washing and degreasing of parts and products in variety of shapes and sizes. Manufactured in six standard sizes, box is adaptable to numerous operations. Handles are provided for handling ease. Made by **Rack Engineering Co.**, Dept. A-13, 5102 Butler St., Pittsburgh 1, Pa.

▲ Mention Item NED-3541 when writing ▲

FLEXIBLE POWER CONVEYOR

Operating at speeds of from 85 to 200 feet per minute, this Flexoveyor floor model conveyor will handle such items as bags or cartons weighing up to 200 pounds.



Conveyor is available as rigid type in lengths of 5, 10, 15 and 20 feet or as flexible type, illustrated, capable of turning 90 degrees in either direction, in lengths of from 15 feet up. Standard width is 20 inches, and height is 2 feet 6 inches.

Conveyors are designed so that individual units can be connected together to operate as single conveyor. Only one motor is needed to operate a series of conveyors up to 60 feet in length. Travel can be in either direction, and control is effected from lead conveyor. Made by **Flexoveyor Mfg. Co.**, 315 E & C Bldg., Denver 2, Colo.

▲ Mention Item NED-3542 when writing ▲

Super-Shear File

THE NEW SUPER-SHEAR

Superior Curved Tooth File

SUPER-SHEAR FEATURES AND USES

The Super-Shear and the Superior are both of the curved-tooth file family. They differ fundamentally in the arc of the teeth. Those of the Super-Shear are in an "off-center" arc, providing both fast stock removal and good finish. "Off-center" arc results in wide, deep gullets and right-angle teeth at left of file — **for fast cutting**; narrow, shallow gullets and long shear-angle teeth at right — for **finishing.** Virtually two files in one, Super-Shear "smooths as it roughs." Longitudinal serrations break up filings and eliminate tendency of file to "run off the work."

Super-Shear is an excellent file for non-ferrous metals — brass, aluminum, magnesium, bronze, copper, babbitt, lead; for plastics, hardwood; for ferrous metals like cold-rolled steel, cast iron, annealed tool and die steels. Available through industrial supply houses.

NICHOLSON FILE COMPANY
34 Acorn Street, Providence 1, R. I.
(In Canada, Port Hope, Ont.)

NICHOLSON FILES
for every purpose

▲ Mention Item NED-3543 when writing ▲

SAVES MINUTES, MUSCLE, MONEY

Here is the logical, economical way to *speed* production handling. Robbins & Myers Bantam electric hoists are fast and convenient—*ideal* for saving time at individual machines; when storing, or shipping. They eliminate slow manual lifting, facilitate horizontal movement, *step-up* working schedules all along the line.

Dependable Bantam wire rope hoists lift 500 lbs. at 30 f.p.m., or 250 lbs. at 60 f.p.m. Available for hook, lug, or trolley mounting. Low headroom. Pendent rope control. Oversize automatic load brake, shoe-type motor brake, and safety upper limit switch.

Bantam hoists are but one of the complete line of R & M industrial hoists and cranes. Types and sizes for every application. Recommendations based on years of specialized materials-handling experience furnished without obligation. Write today for full information.

ROBBINS & MYERS, INC.
HOIST & CRANE DIVISION, SPRINGFIELD, OHIO

▲ Mention Item NED-3544 when writing ▲

5 REASONS FOR USING "CANTON" PORTABLE CRANES

STRONGER
Welded laced steel housing on sturdy steel tube base.

LIGHTER
Weighs less than one half as much as previous models, insuring one-man operation.

VERSATILE
Adjustable extension handle provides additional leverage for heavy lifting.

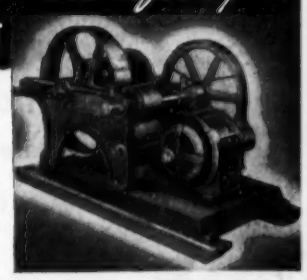
SAFE
Self-locking worm mechanism holds load at any point.

TWO SPEEDS
Fast single-cable operation for light loads. Slower, double-cable operation for heavier loads.

The HILL ACME Company
"CANTON" DIVISION 6404 Breakwater Ave CLEVELAND 2, OHIO

▲ Mention Item NED-3545 when writing ▲

For easy, low-cost lifting...
MASON WHIP HOIST



In 3 capacities, 500 to 1500 pounds Mason Whip Hoists can be preset for speeds varying from 75 to 400 feet per minute.

Here is a hoist that lifts baled, bagged, boxed or tied merchandise — as much as 1500 pounds as high as 50 feet in as little as 10 seconds . . . higher lifts proportionately.

At only a fraction of the installation and operating costs of other types of equipment, Mason Whip Hoists use outside space or small hatchways, lift loads quickly and safely, and can be operated by any workman. Two men can shift loads directly from truck or car to storage floors, handling as much as 90 units per hour. Mounted in a penthouse, on a storage floor or suspended from the ceiling, Mason Whip Hoists save space, time and labor — handle bulky loads easier and faster.

Write for details and prices — see how easily-installed Mason Whip Hoists can help solve your hoisting problems.

REPAIR PARTS FOR MASON WHIP HOISTS AVAILABLE

PAWTUCKET
MANUFACTURING COMPANY
327 PINE STREET, PAWTUCKET, R. I.

▲ Mention Item NED-3546 when writing ▲

Like a Sixteen Foot Liquid Column in an Eight Inch Case

Use the W & T Precision Dial Manometer for wide range accuracy that's easy to read

Here are some design characteristics of the W & T Precision Dial Manometer

Range . . . . . up to 200 inches of mercury gauge or differential
Accuracy . . . . 1 part in 1000
Sensitivity . . . . 1 part in 10,000
Scale Length . . 45 inches (custom calibrated linear or expanded zero)
Dial Diameter . . 8½"
Case . . . . . pressure tight, metal, for flush mounting

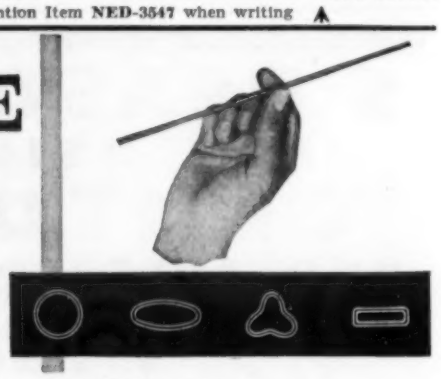
Write for free Technical Publication on the Precision Dial Manometer.

WALLACE & TIERNAN PRODUCTS, INC.
ELECTRICAL MECHANISMS AND PRECISION INSTRUMENTS
BELLEVILLE 9 NEW JERSEY

A-678

▲ Mention Item NED-3547 when writing ▲

MORE than skin deep



Dimensional accuracy of SUPERIOR FINE SMALL METAL TUBING (.010" to ⅝" O.D. Max.) is an achievement of sound production techniques

You have your choice—specify OD-Wall, ID-Wall, or OD-ID—and the tubing cold drawn to your order at Superior will be held to surprisingly close tolerances. Tolerances, in fact, which until a few years ago, were possible only by costly grinding and screw machine operations. Now, with closely controlled cold drawing and annealing techniques, any two of the three basic dimensions are held rigidly in Superior production.

It is important to know that the dimensional accuracy of Superior tubing is more than "skin deep", that you can plan on a snug fit—and get it! Cleanly telescoping tubing—if that is what you require—*is a standard* product of the Superior Tube Company.

Bulletin #31, with concise information on Superior commercial tolerances, is available—we invite you to write for your copy.

For Superior tubing on the West Coast, call PACIFIC TUBE COMPANY, 5710 Smithway Street, Los Angeles 22, California, ANgeles 2-2151

Superior
THE BIG NAME IN SMALL TUBING (.010" TO ⅝" O.D. MAX.)

SUPERIOR TUBE COMPANY 2018 Germantown Avenue Norristown, Pa.

▲ Mention Item NED-3548 when writing ▲

Look How Many Different Parts You Can Make Quickly from SYNTHANE (Laminated plastic) TUBING

With a lathe or screw machine you can quickly transform Synthane laminated tubing into washers, bushings, piping, ferrules or a variety of other tubular parts. (Or we'll fabricate for you.)

An unusual combination of desirable properties make Synthane good for hundreds of jobs. For example, it's strong, hard, durable, corrosion and moisture resistant, an excellent electrical insulator and weighs only ½ as much as aluminum.

Available in wide range of grades, diameters and wall thicknesses to meet your specific requirements. Write for Synthane Tubing Folder today!

SYNTHANE
TECHNICAL PLASTICS
SHEETS • RODS TUBES • FABRICATED PARTS • MOLDED-LAMINATED • MOLDED-MACERATED

SYNTHANE CORPORATION
North East River Road, Oaks, Penna.

Please send me promptly a copy of your folder "Synthane Laminated Tubing."

Name _____
Name of Company _____
Title _____
Address _____
City _____ State _____

▲ Mention Item NED-3549 when writing ▲

LIFTING MAGNET

Three sizes of this Ohio lifting magnet have 39, 55 and 65-inch diameters. Employing new type of construction, outer weld ring and top plate are welded together on top to place weld in position where it cannot be damaged by frequent blows against outer ring. Magnets are equipped with chain pins that fit into chain ears with square holes to eliminate friction. Additional features include weatherproof insulated iron shell, bayonet joints for hand operation and shielded contacts which provide maximum safety from arc. Magnets are hermetically sealed. Made by **Ohio Electric Mfg. Co.,** 5932 Maurice Ave., Cleveland, O.

▲ Mention Item NED-3550 when writing ▲

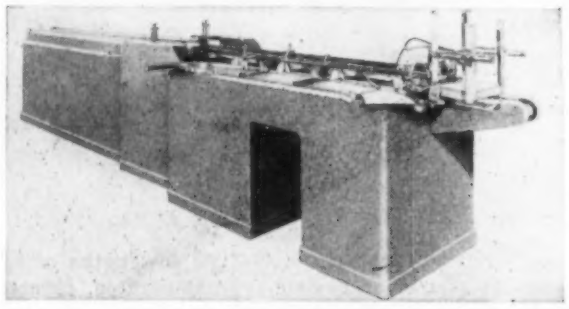
QUICK-STOPPING SPINDLE

Quick-stopping spindle attachment is designed to permit buffing machine operator to change polishing or buffing wheels without motor shutdown. Unit fits standard motor shafts and is constructed with aluminum housing, bronze bearings and accurately machined steel parts. For wheel stoppage, operator grasps large portion of attachment with one hand, and screw taper end of spindle will stop for wheel change. **Louis C. Rathbun Co.,** 18 S. Frederick Ave., Oelwein, Iowa.

▲ Mention Item NED-3551 when writing ▲

PACKAGING MACHINE

Fully adjustable model No. 40 automatic packaging machine is suited for cartoning machine parts, bottles and bagged products. Unit feeds flat cartons from stacked

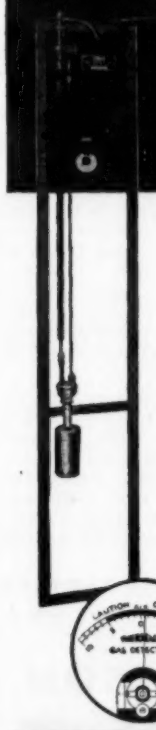


supply, then closes inner flaps on one end and permits product to slide into the other end from an inserting conveyor synchronized with feeding conveyor. Filled cartons are closed automatically in one of three alternate ways. Machine can glue-seal both ends, glue-seal one end and tuck other end, or it can tuck in both ends. All machines are equipped with circulating glue pump system. Made by **Container Equipment Corp.,** 208 Riverside Ave., Newark 4, N. J.

▲ Mention Item NED-3552 when writing ▲

BURNS THERMALO GAS DETECTOR

Guards Your **GAS-FIRED PROCESSING EQUIPMENT** . . . . *day and night!*



• This new instrument detects unburned gas, from leaks or incomplete combustion—indicates the concentration—and operates an automatic gas shut-off well before the danger point is reached.

It operates during idle periods as well as through the combustion cycle . . . 24 hours a day.

So sensitive is the detector that its dial indicates even slight deviations from the correct fuel mixture. Equally effective for mixtures of flammable gases with inert gases—and for air-gas atmospheres.

The Thermalo Gas Detector is furnished for any specified type of gas fuel: manufactured, natural or bottled gas.

★ ELECTRICAL
★ NO GLOWING FILAMENTS
★ CONTINUOUS GAS SAMPLING

Write us your problem

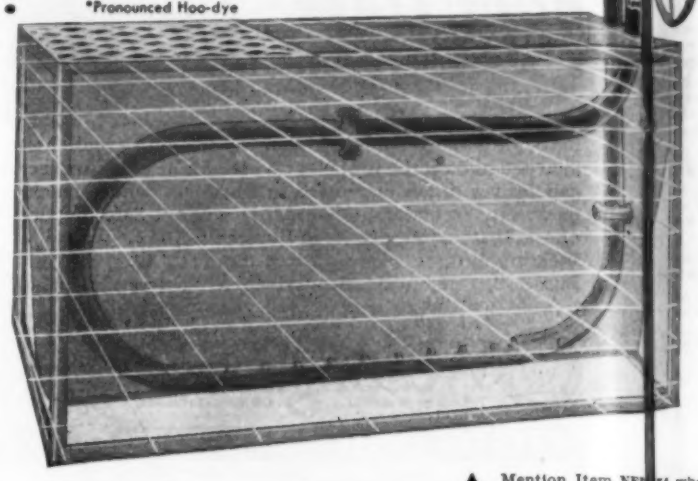
JABEZ BURNS & SONS, INC., 563—11th Avenue, New York 18, N. Y.
Industrial Engineers Since 1864

▲ Mention Item NED-3553 when writing ▲

THE *New* *Houdaille CONVEYOR

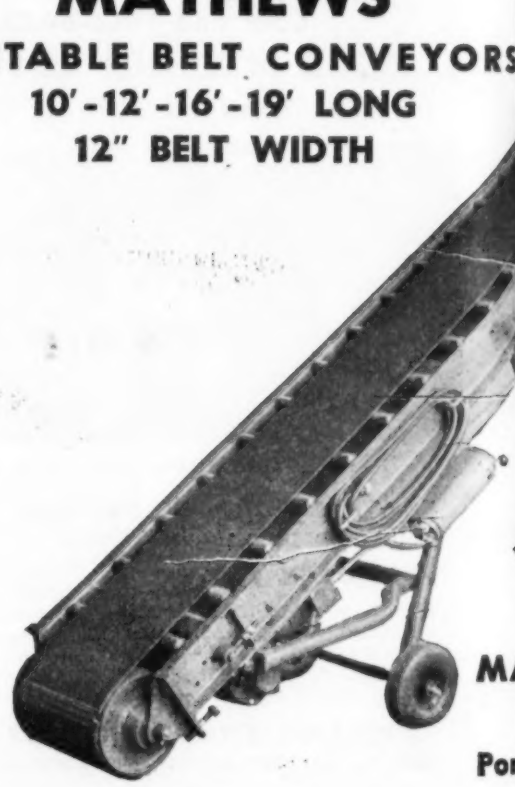
Collects—Transports any type of solid or fibrous material that will settle to the bottom of a tank. It eliminates expensive, laborious time-consuming manual methods.

*Pronounced Hoo-dye



▲ Mention Item NED-3554 when writing ▲

MATHEWS
PORTABLE BELT CONVEYORS
10'-12'-16'-19' LONG
12" BELT WIDTH

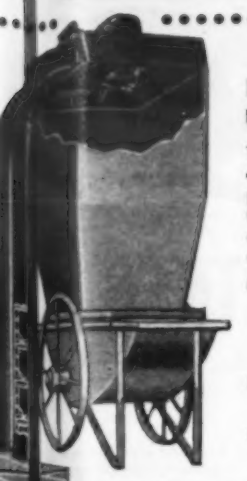


MATHEWS CONVEYOR CO.
ELLWOOD CITY, PA.
Port Hope, Ont.

▲ Mention Item NED-3555 when writing ▲

"Sandwiches"
that cut costs

▲ Mention Item NED-3556 when writing ▲

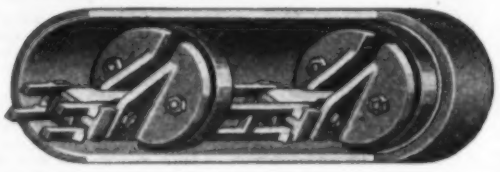


HOW CAN YOU USE THIS CONVEYOR?

There are hundreds of applications for this continuous automatic conveyor. It is already proved by installations in the metal working field for the collection and disposal of sludge, chips and abrasives. Here are some suggested uses:

METAL WORKING (wet or dry)
Metal Chips
Cast Iron Dust
Aluminum Oxide
Abrasive Sludge
SETTLING TANKS
Contamination
Scale
FOUNDRIES
Foundry Sands
Slag
PACKING PLANTS
FOOD PROCESSING
SOAP MANUFACTURING
Cracklings and Similar By-Products
Soaps
REFRACTORIES
Ceramic Powders
Aggregates
Refractory Materials
Cement
MANY OTHERS

Flights are made of oil resistant neoprene rubber, reinforced by steel backing plates. These travel through 4" iron pipe and are pulled by a high torque gear transmission enclosed in an oil-tight gear case.



Write today for complete information. Engineering service is available

HONAN-CRANE CORPORATION
a subsidiary of
HOUDAILLE-HERSHEY CORPORATION
405 Wabash Avenue, Lebanon, Indiana

NED-54 when writing

FLUORESCENT LAMP

Approximating the color of incandescent bulbs, Warmtone fluorescent lamps provide mellow light and are designed for use in offices or commercial installations. Color makes lamp especially suitable for use in all types of retail stores and showrooms displaying merchandise to be used in and around the home where incandescent lighting is generally used. Lamps are available in 20 and 40-watt sizes which are priced at 95 cents and $1.25 respectively Made by **Sylvania Electric Products Inc.,** Dept. JPW, 500 Fifth Ave., New York 18, N. Y.

Mention Item **NED-3557** when writing

AUTOMATIC TORCH

Featuring pistol grip and trigger operated lighting mechanism, this automatic acetylene torch was developed to provide maximum safety in soldering, brazing and lead burning operations. Interchangeable combustion tubes and nozzles in 1/8, 3/16 and 1/4-inch sizes and 45-degree angle extension tips in 3/16 and 1/4-inch sizes provide versatility of application. Gun which operates only with acetylene is ordinarily used with MC or B type tanks. Flame is extinguished automatically when gun is not in use. Pressure gage and regulator and connecting hose with clamps are standard equipment. Made by **Century Aircraft Co.,** 5601 W. Century Blvd., Los Angeles 43, Calif.

Mention Item **NED-3558** when writing

MASONRY SAW

Designed for wet cutting to eliminate dust and to permit use of diamond blades as well as abrasive cut-off wheels, this Feedmatic masonry saw features automatic control of blade pressure. It can be operated with foot pedal or with head locked in any position for constant-depth cut.

Feedmatic control assures safe, efficient predetermined pressure on cutting blade. Adjustable weight sliding on belt guard is set at proper position to provide correct blade pressure for type of material being cut. After blade is in contact with work, pressure is controlled automatically as blade feeds through material. Self-contained coolant system consists of positive displacement rotary pump which feeds cutting fluid to stainless steel jets built into blade guard and assures adequate delivery to both sides of blade. Height of saw is adjusted instantly for various materials by lever-operated toggle mechanism. Made by **Victor Engineering Corp.,** 5299 Whitby Ave., Philadelphia 43, Pa.

Mention Item **NED-3559** when writing

5 metals to choose from

When you specify

Titeflex

Flexible Tubing

Brass Bronze
Monel Inconel
Stainless Steel

You name the operating conditions—TITEFLEX has a flexible tubing which will exactly meet your requirements. TITEFLEX all-metal construction assures you of years of efficient service on the toughest applications. Write for literature.

Titeflex, Inc. 548 Frelinghuysen Ave., Newark 5, N. J.

Exclusive Manufacturers of Titeflex high quality products for more than 30 years

Sales Offices: CHICAGO CLEVELAND DETROIT PHILADELPHIA LOS ANGELES BOSTON SAN FRANCISCO TORONTO

Mention Item **NED-3561** when writing

COMPLETE READY TO OPERATE

MATHEWS CONVEYER COMPANY
ELLWOOD CITY, PENNA.
Port Hope, Ontario • San Carlos, Cal.

NED-55 when writing

UNION METAL Materials Handling Equipment SAVES Space...Time...Money

PICTURED on this page is a typical example of how Union Metal steel pallets increase production line efficiency... reduce handling costs... ease employees' work.

The double deck pallets shown are being used to store unit loads of heavy copper ingots. The "sandwich style" stacking makes *better* use of storage space—puts "dead" overhead to work.

All of Union Metal's rugged materials handling units —*steel* Pallets, Skids, Boxes—bring extra savings by helping keep floor space clear . . . by making possible the moving, storing or handling of materials in unit loads, quickly and safely. For complete information, write The Union Metal Manufacturing Co., Canton 5, Ohio.

UNION METAL
Materials Handling Equipment

NED-56 when writing

Makes Better Copies

FASTER and EASIER

HUNTER PHOTO-Copyist

Hunter Photo-Copyist is simple to operate. Absolutely accurate. Reproduces factory forms and records—anything written, printed, typewritten, photographed, drawn.

Hunter Hecco-Dyzed Papers are specially sensitized by an exclusive dye for perfect facsimiles of the originals. Used as masters, they eliminate costly India ink tracings. As negatives, they rejuvenate worn, smudged, creased originals and make *superior* reproductions. All together there are 12 different papers, specially designed for all types of reproduction.

Hunter Service offers you free advice on all photo-copying problems. Just call your nearest Hunter Representative.

FREE Samples of the many Hunter Papers with reproductions of the work for which they were specially designed. Drop us a card today.

HUNTER PHOTO-COPYIST, INC.
131 Hunter Avenue, Syracuse, N. Y.

Mention Item **NED-3560** when writing

FOR EXAMPLE

HINES FLASK COMPANY SOLVES GRINDING AND DRILLING PROBLEM

INCREASES PRODUCTION 500%

WITH WALKER-TURNER 20" DRILL HEADS

Air-chipping sprues from aluminum castings retarded production . . . drilling corner holes with vertical presses caused inaccuracies at Hines Flask Co. of Cleveland.

Walker-Turner 20" Drill Heads solved *both* problems. Equipped with abrasive wheels, they ground down sprues in minimum time—*production soared 500%.* Operated horizontally in Hines' work holding set-up, they drilled holes at accurate angles—*production increase, 100%.*

Handling unusual requirements or routine operations, Walker-Turner Machine Tools pay for themselves within a few weeks. *For complete catalog, write to Walker-Turner Company, Inc., Plainfield, N.J.*

In this Hines' set-up 20" Drill Press grinds surfaces of aluminum flasks in radial motion. 20" Drill Heads have 6" spindle travel. Capacity: cast iron —1"; steel—3/4". Price: less motor and column, Model D-1101X, Power Feed —$216.00; D-1100X, Hand Feed—$135.00.

walker-Turner MACHINE TOOLS

SOLD ONLY BY AUTHORIZED INDUSTRIAL MACHINERY DISTRIBUTORS

DRILL PRESSES - HAND AND POWER FEED • RADIAL DRILLS
RADIAL SAWS • BAND SAWS - FOR WOOD OR METAL
RADIAL METAL CUT OFF MACHINES • MOTORS

Mention Item **NED-3562** when writing

O.K. GANG SLITTER KNIVES *for longer service*

Made in O.K. Battle Axe, Dura-Chrome or Standard Carbon Grades. Precision ground to ±.0002 tolerances on thickness, diameter and bore. Extremely high finish.
SPACERS for above in hardened or unhardened grade ground to same tolerances as Slitters.
We make rotary cutters similar to the one shown for trimming sheet steel, light plates. Some are made with bevels for cutting paper, rubber, plastic, cloth, etc.

O.K. ROTARY SHEARS & BLADES *for maximum toughness*

The OHIO KNIFE Co.
CINCINNATI 23, OHIO, U. S. A.

CLIP AND MAIL TODAY

THE OHIO KNIFE CO., CINCINNATI 23, OHIO 4
Gentlemen: Please send without obligation specific data on knives I have checked.
☐ CIRCULAR KNIVES ☐ SHEAR BLADES
COMPANY_____
NAME_____
ADDRESS_____

Mention Item **NED-3563** when writing

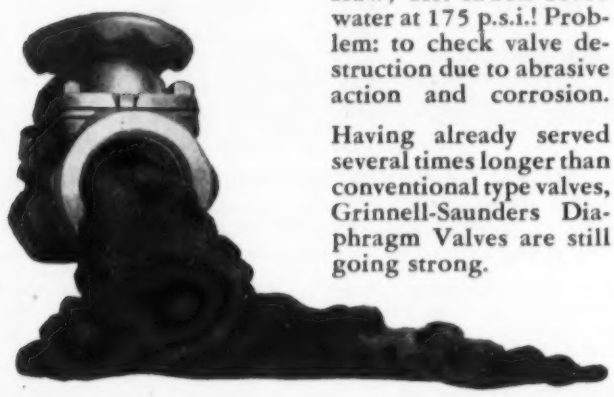
Suction Lifts to 25 Feet with... Allis-Chalmers *Self-Priming* Pump!

A NEW automatic spring valve in the A-C *Self-Priming* pump provides fast, smooth transition from priming or vacuum pumping to straight centrifugal action. Its automatic primer is effective for suction-lifts up to 25 ft. Besides rapid priming action, it offers easy portability and installation, compactness, reduced maintenance. Comes in four sizes from 1½ by 1½ to 3 by 3 in. Capacities to 350 gpm. Heads to 300 ft. Bulletin 08B6319B. A 2454

ALLIS-CHALMERS
MILWAUKEE 1, WISCONSIN

Mention Item NED-3564 when writing

MISSISSIPPI RIVER MUD is this valve's regular diet



Raw, silt-laden river water at 175 p.s.i.! Problem: to check valve destruction due to abrasive action and corrosion.

Having already served several times longer than conventional type valves, Grinnell-Saunders Diaphragm Valves are still going strong.

No corrosion... no contamination... no clogging...

with GRINNELL-SAUNDERS DIAPHRAGM VALVES

ISOLATED WORKING PARTS. The flexible diaphragm isolates working parts of the valve from the fluid, preventing contamination or corrosion.

CORROSION-PROOF LININGS. A selection of diaphragm materials and also body linings of glass, porcelain, lead, rubber or synthetics to suit your service requirements.

STREAMLINED FLOW... POSITIVE CLOSURE Streamlined passage without pockets minimizes friction. Large area of contact of the diaphragm, plus diaphragm resilience, permit positive closure even when solids are trapped.

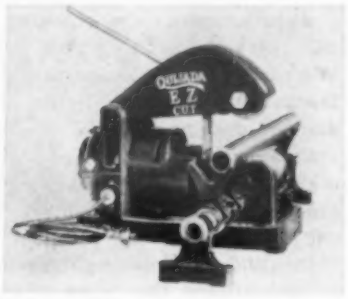
Write for catalog "GRINNELL-SAUNDERS DIAPHRAGM VALVES"

GRINNELL COMPANY, INC.
Providence 1, R. I.
BRANCH WAREHOUSES IN PRINCIPAL CITIES

GRINNELL
WHENEVER PIPING IS INVOLVED

Mention Item NED-3565 when writing

PIPE & TUBE CUTTER



Power driven rollers, automatic stop-start action and ball bearing operation throughout are features of E-Z Cut pipe and tube cutter. Compact in design, this portable machine handles cutting of standard as well as cast iron pipe ranging from ⅜ to 4 inches in diameter. Integrally mounted ½-horsepower 110-volt universal type motor furnishes power for direct gear drive. Gears are self-lubricating, and adjustable roller yokes provide necessary support for pipe. Made by **Quijada Tool Co.**, 5474 Alhambra Ave., Los Angeles 32, Calif.

Mention Item NED-3566 when writing

LIGHTWEIGHT SAFETY GOGGLE

Employing Safe-T-Vis allyl casting resin lenses that are highly resistant to surface scratching, this line of safety goggles features lightness in weight, comfort to wearer and maximum safety. Plastics from which lenses are ground develops extreme surface hardness. Goggles are available in four styles and in selection of sizes. Made by **Univis Lens Co.**, Dayton, O.

Mention Item NED-3567 when writing

POWER RECORDING UNIT

Providing measurement of total engine wear by recording cumulative power-hour units developed by internal combustion engine, this Power-Recorder device eliminates guesswork in determining usage and wear. Unit continuously measures engine speed, manifold pressure and atmospheric pressure. Power data are obtained in accordance with engine power curves.

Two types of recorders are available, one with flexible shaft connection to engine tachometer outlet and another of remote-operating type which is electrically driven by tachometer generator mounted on engine tachometer outlet. Device can be calibrated in convenient multiples of horsepower-units. It is suited for installation on prime movers, busses, trucks and earthmoving equipment as well as on aircraft engines. Recorder prints cumulative power-units and engine identification number in manner of timeclock so that record can be filed. Visual counter type indicators are available also. Made by **Square D Co.**, Kollsman Instrument Div., 80-08 45th Ave., Elmhurst, N. Y.

Mention Item NED-3568 when writing

SCHRADER AIR CONTROLS

With Schrader Pneumatic Press Controls your machine operators work faster, more efficiently, with greater safety and less fatigue. Work is better, more uniform and production often doubled.

By means of a special cut-out valve assembly, operator is required to use both hands to operate machine thus preventing tying down lever or risking dangerous hand injuries.

Easy and economical to install, Schrader Pneumatic Controls permit presses to be converted to either hand or foot operation as desired. Write for complete information and free literature now. Dept. No. DEN 528.

A. SCHRADER'S SON
DIVISION of SCOVILL MANUFACTURING COMPANY, INCORPORATED
478 Vanderbilt Ave. Brooklyn 17, N.Y.

Mention Item NED-3569 when writing

BATTERY-CHARGING ECONOMY for your INDUSTRIAL TRUCKS with the HERTNER

MOTOR-GENERATOR Model "K-1" Charging Unit

With the Hertner Type "K-1" Motor-Generator Single Circuit Charging Unit for electric industrial truck batteries no current is wasted during the charging period since charging resistors are not used when charging.

Each Hertner K-1 Unit is specially designed for the particular battery to be charged. For lead-acid battery charging (in 8 hours), the generators are of the drooping volt-ampere type which automatically tapers the charging current as the charge progresses; for nickel-alkaline battery charging in 7 hours, the generator is of the constant-current type.

Control Panel

Fully Automatic

1. Automatic control of charge rate in accordance with Battery Manufacturer's recommendations.
2. Automatic cut-off and shut-down of motor-generator when battery is fully charged.
3. Automatic shut-down of motor-generator set and disconnect-of-battery in case of power failure, and automatic re-start when power service is restored.
4. Automatic protection against reversal of current.
5. Overload protection to both motor and generator.

Write for Bulletin 104 describing Hertner Model "K-1" Single-Battery Charger. Multiple chargers for all types of batteries are also available. For details, send us your requirements.

THE HERTNER ELECTRIC COMPANY
A General Precision Equipment Corporation Subsidiary
Motors • Motor Generators • Generator Sets
12752 ELMWOOD AVENUE • CLEVELAND 11, OHIO
Representatives in principal cities throughout the world

Mention Item NED-3570 when writing

Dependable Flow Control with DAVIS FLOAT VALVES

THE DAVIS NO. 60 FLOAT VALVE

WHERE top speed plant operation is vital don't forget the commonplace pieces of equipment which must operate dependably in order to insure the highest efficiency in every plant department.

For Float Valve dependability, the Davis No. 60 is unexcelled. Here are a few of its outstanding features:

1. The Famous Davis Single-Seat Pilot Stem Valve! Tight-closing and non-sticking. Standard sizes will open against any pressure up to 125 lbs.
2. No internal packing! Disc renewable easily and economically. Hot or cold liquid at high or low pressure handled without hunting or water hammer.
3. Sizes 3" and smaller are all-brass valves. Larger sizes have semi-steel body, bronze bonnet, piston and trim. Globe or angle body patterns.

DAVIS REGULATOR CO., 2531 S. Washtenaw Avenue, Chicago, Ill

DAVIS REGULATOR COMPANY

Mention Item NED-3571 when writing

RAPID-WHEEL CONVEYOR NOW OFFERED IN ALUMINUM IS 40% LIGHTER WEIGHT

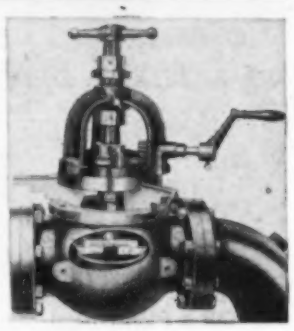
This popular gravity conveyor is available with channel frames, cross members, spanner tubing and wheel shields of No. 61-ST aluminum alloy. The 40% lighter weight opens many new uses to gravity wheel conveyors and adds greater flexibility to systems now in operation. Offered in 12" or 18" widths, in 5', 8' and 10' lengths, in both curves and straight sections, the new aluminum sections may be coupled to standard steel Rapid-Wheel gravity conveyors. The load capacity is 600 lbs. per 8' section. Write today for details.

THE RAPIDS-STANDARD CO., INC.
378 Rapistan Building, Grand Rapids 2, Michigan
Representatives in principal cities

Rapids-Standard
MATERIAL HANDLING EQUIPMENT

Mention Item NED-3572 when writing

INCREASE VALVE LIFE 10 TIMES WITH *Dexter* VALVE RESEATING MACHINES



Stop wasting steam, water, oil or air through leaking valves. Eliminate costly valve replacements. *One man can reseat those valves right on the line* with a Dexter outfit. Many users find it pays for itself the first month! The Dexter System of *Preventive Maintenance* gets rid of waste and protects your investment. A valve reconditioned this easy way is actually *better* than a new one!

IMMEDIATE DELIVERY — Dexter Valve Reseating equipment is available for globe or gate valves in sizes from ¼" to 12". Write for the free Dexter folder on the cost of leaky valves. V-73

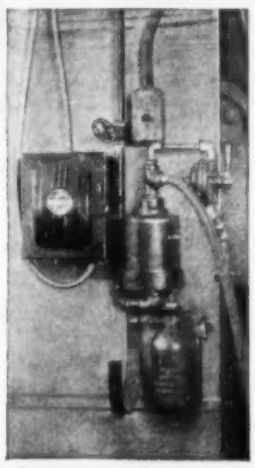
Dexter VALVE RESEATING MACHINES

THE LEAVITT MACHINE COMPANY
190 River Street *Orange, Massachusetts*

Mention Item **NED-3573** when writing

NO SCORE!! CONTAMINATION 000

WHEN ARIDIFIER PITCHES AGAINST COMPRESSED AIR CONTAMINATION



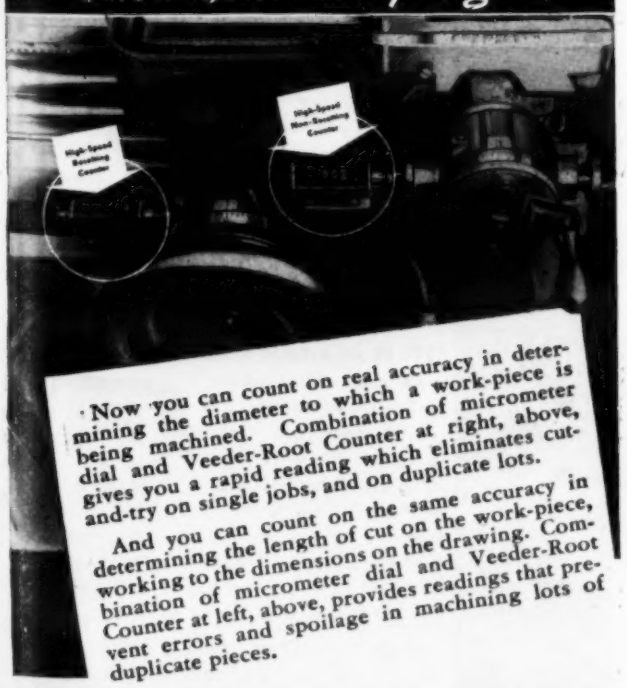
"Riddy" wins the game for you by striking out moisture, dirt, and oil from compressed air lines . . . protects your pneumatic tools, sprayed finishes, sand blasting equipment. Shown here is a typical Aridifier installation . . . keeps air clean and dry through positive centrifugal force. Guard against costly air contamination with an Aridifier—no baffles or filters; stays clean. Send for Bulletin 147.

Logan Engineering Company
4904 Lawrence Avenue, Chicago 30, Illinois

Logan ARIDIFIER
Dries and Cleans Compressed Air

Mention Item **NED-3574** when writing

How these DIRECT Veeder-Readings Save Time, Errors and Spoilage—



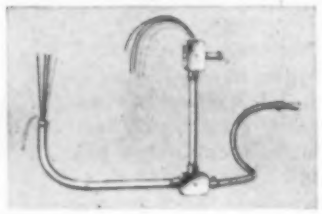
Now you can count on real accuracy in determining the diameter to which a work-piece is being machined. Combination of micrometer dial and Veeder-Root Counter at right, above, gives you a rapid reading which eliminates cut-and-try on single jobs, and on duplicate lots.

And you can count on the same accuracy in determining the length of cut on the work-piece, working to the dimensions on the drawing. Combination of micrometer dial and Veeder-Root Counter at left, above, provides readings that prevent errors and spoilage in machining lots of duplicate pieces.

VEEDER-ROOT INC., HARTFORD 2, CONN.

Mention Item **NED-3575** when writing

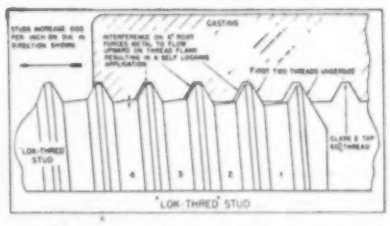
CUSTOM FABRICATED CONDUIT



Complete electrical conduit assemblies made to specifications of individual equipment manufacturers minimize fabrication problems and serve to eliminate costly operations involved in cutting, threading and bending conduit. Assemblies can be supplied with or without wire, in flexible or rigid conduit or EMT, and with practically any wiring devices needed. Service is designed to help manufacturers of such products as oil burners, water heaters, major appliances, textile machinery, machine tools, trailers and pumps. Available from **General Electric Co.,** 1285 Boston Ave., Bridgeport 2, Conn.

Mention Item **NED-3576** when writing

LIQUID SEALING THREAD

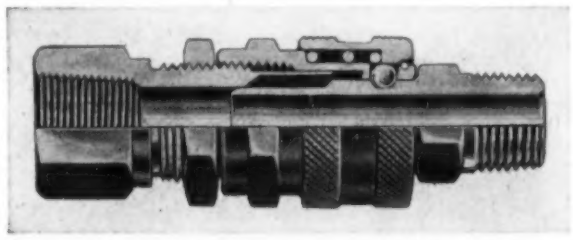


Formerly used on studs, Lok - Thred design is now being employed also on bolts and screws to provide seal that liquids and air cannot penetrate even when under pressure. Thread design principle places load on 6-degree angle at root of thread so that stresses are carried by compression transmitted to surrounding metal. With this positive sealing action, bosses and blind tapping can be eliminated in many cases. As pressure against stud increases, parts are forced together under greater pressure. Made by **National Screw & Mfg. Co.,** 2450 E. 75th St., Cleveland 4, O.

Mention Item **NED-3577** when writing

STEAM LINE COUPLING

Facilitating quick connection or disconnection while under pressure, this Hansen steam coupling is available in high and low pressure types and two sizes in



each type. Series No. 2500 and No. 4500 coupling are designed to operate on pressures from 40 to 350 pounds per square inch and have 5/16 and 1/2-inch bore respectively. Series No. 2000 and No. 4000 have ¼ and ½-inch bore respectively and are designed to operate on pressures ranging from 0 to 40 pounds per square inch. They feature smooth, unrestricted bore. Preformed graphite and asbestos packings are replaceable and can be adjusted while line is under pressure. Thread sizes range from ⅛ to ⅝-inch, and all machined parts are of soid brass bar stock. Made by **Hansen Mfg. Co.,** 4033 W. 150th St., Cleveland 11, O.

Mention Item **NED-3578** when writing

This is the business end— TAKE CARE OF IT ON A DETROIT TAP RECONDITIONER

You can put worn taps right back in "good as new" shape with the DETROIT 4 in 1 tap reconditioner. It's like getting an almost unlimited supply of NEW TAPS for next to nothing, for this reconditioner is remarkably low in price—pays for itself in short order. It chamfers, grinds flutes (from 2 to 6), spiral points taps where required and polishes the points. Handles taps up to 1½ inch diameter.

For complete information write or wire for Bulletin #DTR-4.

DETROIT TAP & TOOL CO.
8432 BUTLER AVE. • DETROIT 11, MICHIGAN

Mention Item **NED-3579** when writing

More Power to You with HEIN-WERNER HYPER*-POWER UNIT HYDRAULIC JACKS in Your Factory

Here's smooth, full power for hundreds of lifting, bending, pushing, pressing or moving applications in your plant. Hein-Werner HYPER-POWER Unit Hydraulic Jacks assure you of GREATER SAFETY, COMPLETE DEPENDABILITY and LONGER SERVICE LIFE.

***HYPER, according to the dictionary, means over, above, beyond the ordinary.**

Made in models of 1½, 3, 5, 8, 12, 20, 30, 50 and 100 tons capacity. Consult your nearest industrial supply dealer, or write us for details.

HEIN-WERNER CORPORATION
WAUKESHA, WISCONSIN

Mention Item **NED-3580** when writing

Benefit from... New Additions to Gauss Meter Line

This miniature magnetometer is the only instrument that gives direct measurement of density and direction of magnetic flux in permanent magnets and d-c electromagnets. Suitable for laboratory and shop use, for research and development, or production testing of magnets.

★ NEW THIN PROBE MODEL is only .052 inches in diameter for one half inch of lower end. This permits measurements of flux in many small-gap magnets heretofore excluded from the range of this type of measuring device.

Lightweight—Extremely Easy to Use—Inexpensive

This compact instrument can be held in one hand. Its tiny prod enables flux to be measured at what amounts to a single point in air gap or iron structure—making possible a detailed analysis of flux distribution in any magnetic system.

★ SUBSTANTIAL SAVINGS WITH NEW TRIPLE KIT . . . For those applications requiring several instruments of different ratings there's a new triple kit. Three standard gauss meters, each with its own reference magnet, are contained in a sturdy carrying case. Costs less than separate purchases. Write for leaflet GEC-238, *Apparatus Department, General Electric Company, Schenectady 5, N. Y.*

GENERAL ELECTRIC
602-123

Mention Item **NED-3581** when writing

HOOVER America's only Ball Bearing with HONED RACEWAYS

Hoover The Aristocrat of Bearings
HOOVER BALL AND BEARING CO., ANN ARBOR, MICH.

Mention Item **NED-3582** when writing

WASHERS
STANDARD AND SPECIAL . . .

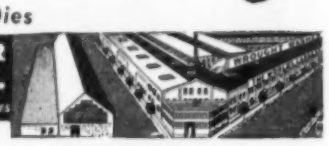
EVERY TYPE
EVERY MATERIAL
EVERY PURPOSE
EVERY FINISH

STAMPINGS
OF EVERY DESCRIPTION

- BLANKING
- DRAWING
- FORMING
- EXTRUDING

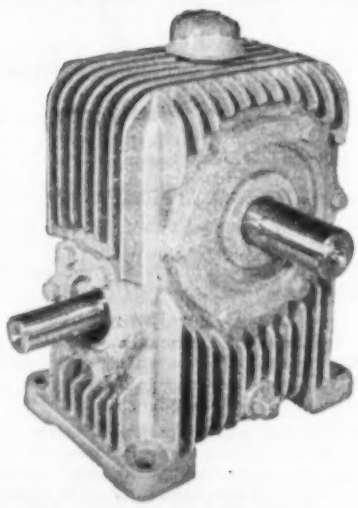
Let us quote on your requirements
Over 22,000 Sets of Dies

WROUGHT WASHER MANUFACTURING CO.
The World's Largest Producer of Washers
2256 S. BAY ST., MILWAUKEE 7, WIS.



▲ Mention Item NED-3583 when writing ▲

Where SMALLER GEARS mean LONGER LIFE



Cone-Drive gearing in STANDARD REDUCERS save space AND increase life—due to Cone-Drive's "more teeth in contact and more contact per tooth." How much space will they save *you?*

Ask for
BULLETIN #8901B

CONE-DRIVE DIVISION
MICHIGAN TOOL COMPANY
7171 E. McNichols Road • Detroit 12, U. S. A.

▲ Mention Item NED-3584 when writing ▲

Learn more about
LYON-Raymond's *New* HYDRAULIC
Pallet Lift Truck . . .

Streamlined! Lightweight!

Check All These Unusual Features . . .

- **FRAME**—High strength alloy sheet steel formed into strong box sections.
- **AXLES**—Heat-treated alloy steel.
- **WHEELS**—(and other non-structural parts) made from aluminum alloy.
- **BEARINGS**—Anti-friction bearings used at all important points in lifting mechanism.
- **WORKING PARTS**—Totally enclosed for better protection.
- **WEIGHT**—Reduced to a minimum by new design and modern lightweight construction.

This advanced construction fits the Lyon-Raymond Hydraulic Pallet Lift Truck to do jobs with speed and ease never before attained by hand pallet trucks. Write today for complete information that may save you time and money!

LYON-Raymond Corporation
692 Madison St., Greene, N. Y.

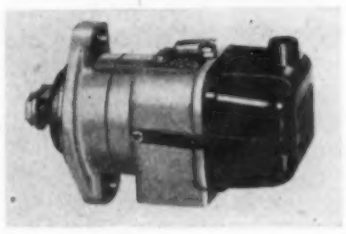
▲ Mention Item NED-3585 when writing ▲

ROTARY LAYOUT TABLE

Developed to facilitate accurate layout work in tool rooms, model shops, etc., this Ideal rotary layout table is calibrated full 360-degrees of rotation, and index on adjusting spindle permits settings to within six minutes. Precision worm and gear have provision for adjustment to compensate for wear or backlash. Base with four mounting slots is cast nickel alloy iron and ground on both sides for parallelism. Two machined right-angle T-slots are provided to secure work to table. Made by **Erwood Co.,** 215 Woodstock St., Crystal Lake, Ill.

▲ Mention Item NED-3586 when writing ▲

GASOLINE ENGINE MAGNETO

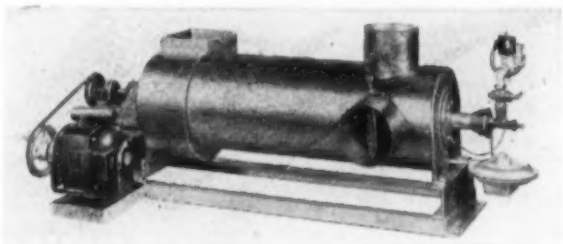


Designed especially for use on small and medium size one and two-cylinder gasoline engines, this model AJ gearless magneto is suitable for applications ranging from units powering lawnmowers and motorboats to industrial and construction equipment engines. Its low shaft height makes it readily adaptable to practically all engines, and it can be installed with various types of flange mountings. All parts are readily accessible. Extremely compact, magneto weighs 3 pounds. Made by **Thomas A. Edison, Inc.,** Automotive Div., West Orange, N. J.

▲ Mention Item NED-3587 when writing ▲

INDUSTRIAL HEATER UNIT

Improved gas-fired Midget utility air heater is direct fired for maximum efficiency and is suitable for use in heating drying rooms and small industrial ovens. Having



heating capacity of 125,000 British thermal units per hour, heater is capable of producing air temperatures up to 350 F.

Included in packaged heating unit are fan, motor, safety devices and temperature controls. Combustion chamber is bricklined, and hot air can be recirculated to provide for fuel economy. Fan capacity is 1000 cubic feet of air per minute. Both burner and air volumes are controlled. Either indicating or nonindicating temperature controls can be furnished. Made by **Gas Appliance Service, Inc.,** 1211 Webster Ave., Chicago 14, Ill.

▲ Mention Item NED-3588 when writing ▲

"There's no substitute for the ZIP!"

The Zip-Lift is the standout in quality — the original wire rope hoist with full magnetic push-button control. Tens of thousands of P&H Zip-Lifts are now in service. Why not benefit by this proved experience? Add one to your handling now — to boost production and cut costs! They're available for immediate delivery. For full details, send for Bulletin H20-4.

P&H ZIP-LIFT

HANDLE IT *Thru-the-Air* AT LOWER COST

P&H ELECTRIC HOISTS
4537 West National Avenue
Milwaukee 14, Wis.

HARNISCHFEGER CORPORATION
HOISTS • WELDING ELECTRODES • MOTORS • P&H • EXCAVATORS • ELECTRIC CRANES • ARC WELDERS

▲ Mention Item NED-3589 when writing ▲

VACUUM OR PRESSURE PUMP
NO BELTS—NO GEARS—NO EXTENDED DRIVE-SHAFT
LUBRICATES ITSELF

Better as a MACHINE ACCESSORY- can be mounted on sides or base of machine, or suspended under table or frame.

MOTOAIR MEANS *More Power in Less Space!*

MOTOR & PUMP in ONE integral unit . . .

Widely used in paper handling, bottle filling, web guiding, sheet feeding, on printing and packaging machinery.

LESS "WEARING" PARTS!

NEW JERSEY MACHINE CORPORATION
1530 Willow Ave. • Hoboken, N. J.
Factory offices in Chicago, Cincinnati, Los Angeles

▲ Mention Item NED-3590 when writing ▲

NEW FUL-VUE ACETATE GOGGLES WITH SIDE SHIELDS

very popular PROTECTION

Pleasant to wear . . . pleasing to look at and offering maximum protection—that's the new AO Ful-Vue Acetate Goggle. In chemical and electrical work and operations where the tiniest spark may cause fire or explosion, these goggles are literally worth their light weight in gold.

Features include side shields, if desired, for protection against particles striking laterally . . . shield ventilated to minimize fogging of lenses . . . Ful-Vue clear or calobar lenses that conform to eye orbit . . . no hinges and temples in line of vision. Nose pads distribute goggle weight evenly. Face-formed new bridge. Your nearest AO Safety Representative can supply you with this popular goggle.

American Optical COMPANY
Safety Division
Southbridge, Massachusetts • Branches in Principal Cities

▲ Mention Item NED-3591 when writing ▲

UNITED Electric Controls Company

TWO ACUTELY SENSITIVE CONTROLS FOR PRESSURE-VACUUM APPLICATIONS

TYPE P with calibrated dial adjustment

A precise switch with very close differentials for use in liquid level alarms and controlling air and gas pressures non-injurious to brass where accuracy and sensitivity are important. Available in various ranges from 0–180 psi and from 0–30" hg vac. Diff 1" wc to 2 psi fixed. Electric ratings AC 1200 watts 110–600 V Non-Ind., AC 300 watts 110–460 V Ind., DC 110 watts 110–220 V Non-Ind., DC 60 watts 110–220 V Ind.

TYPE LR adjustable with no calibrations

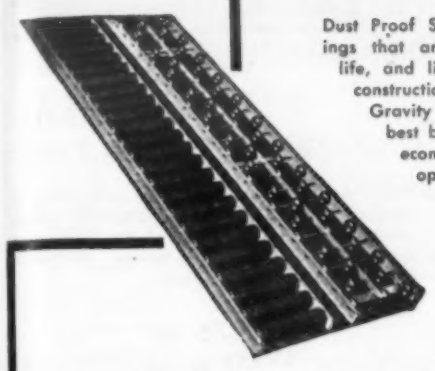
An extremely sensitive switch of exceptionally rugged construction highly resistant to shock and vibration. Water-tight and weatherproof, this control is especially suited to marine diesel applications. Available in various ranges from 0–180 psi and from 0–30" hg vac. Diff 1" wc oz to 2 psi fixed. Electric ratings same as Type P.

FOR COMPLETE DETAILS WRITE:
81 SCHOOL ST., WATERTOWN, MASS.

Standard & Special Thermostats & Pressure Switches

▲ Mention Item NED-3592 when writing ▲

GRAVITY CONVEYORS



Dust Proof Sealed Ball Bearings that are lubricated for life, and light weight rigid construction make Metzgar Gravity Conveyors your best buy for easy flow, economical handling operations.

Sections—5', 10'; Standard widths—Wheel Type 11½"; Roller Type 11½" and 16". Two or more sections may be bolted together for greater widths. We bore the holes and supply bolts and nuts at no additional cost. Curves—5', 8', 12'. 45° or 90°.

INVESTIGATE OUR ENDLESS BELT POWER CONVEYOR AND LOADER

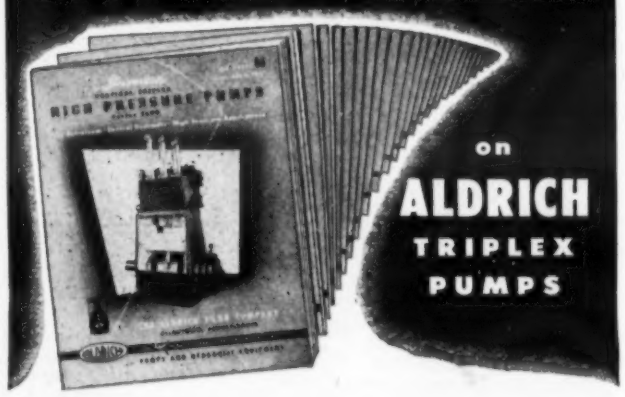
WRITE FOR DESCRIPTIVE FOLDER

METZGAR CO. 406 Douglas N. W.

Grand Rapids 4, Michigan

Mention Item NED-3593 when writing

Here's the Latest Information



It pays to keep up-to-date on the latest developments in high pressure pumps—and here's an excellent way to do it. Just write for your copy of new Aldrich Data Sheet 66.

It completely pictures and describes the Aldrich Inverted Vertical Triplex Pump—gives standard ratings, approximate dimensions and diagrams of comparative discharge flows. The Data Sheet describes the construction and operation of the pump and points out its low maintenance features. Cross-section drawings and various charts illustrate primary advantages.

You can get your free copy, now. Just write to—

THE ALDRICH PUMP COMPANY

4 Gordon Street • Allentown, Pa.

ALDRICH THE First NAME IN INVERTED RECIPROCATING PUMPS

Mention Item NED-3594 when writing

STURTEVANT
Dustless BLENDERS

Produce Perfectly Mixed Products with NO Loss of Materials

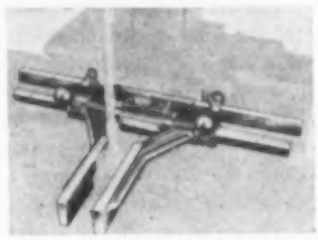
Four-way mixing action produces homogeneous blends. No matter what the densities, weights, finenesses or other physical properties of the ingredients, Sturtevant Dustless Blenders provide *a thoroughly blended product* with no substances floating to remain unmixed. Sturtevant advantages include—single opening for both receiving and discharging . . . "open door" accessibility for quick, thorough cleaning . . . rugged construction for long life and minimum maintenance. Sturtevant Dustless Blenders are available in mixing capacities from 500 to 20,000 pounds. Write for information or engineering assistance.

STURTEVANT MILL COMPANY

114 CLAYTON ST., BOSTON 22, MASS.

Mention Item NED-3595 when writing

UNIVERSAL WORK HOLDER



Designed for attachment to box column spindle drill presses, this model No. 8 universal safety work holder (*Item NED-1072, Feb. '48*) locks to column dovetail and is fully adjustable to all presses of this type. It affords rapid and easy method for securing work on tables where there is no provision for clamping. Unit raises and lowers with table and locks with quarter-turn of handle. Jaws open full width of bar to accommodate 11-inch work. Made by **Universal Vise & Tool Co.**, 106 Main St., Parma, Mich.

Mention Item NED-3596 when writing

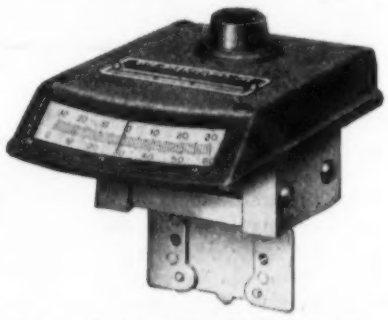
PARTS-BIN STORAGE RACKS

Adapters which accommodate Stackbin-Stackrack combinations permit small sizes of Stackbin shop box units to be used with large ones to provide complete storage facilities. Adapters lock racks together without use of tools to form racks of any capacity. Stackbins have hopper front and can be used either as tote pans, storage boxes or assembly bins, and they slide into racks like drawers. Made by **Stackbin Corp.**, 1077-89 Main St., Pawtucket, R. I.

Mention Item NED-3597 when writing

POINTER GALVANOMETER

Featuring excellent current sensitivity through use of Alnico magnets, series 570-600 pointer galvanometer is especially suited to industrial apparatus in fields of colorimetry and densitometry or for measuring electrical potentials, conductivity, light flux or temperature. High angular sensitivity is combined with large scale to make these units adaptable as both current and voltage measuring instruments, and they can be used for null point indicating in bridge and potentiometer circuits. Meters can be mounted on any horizontal panel and are furnished with zero adjusted either left or center of indicator face. Made by **G-M Laboratories, Inc.**, 4316 N. Knox Ave., Chicago 41, Ill.



Mention Item NED-3598 when writing

"When you want this valve to work . . . it works"

HOMESTEAD LEVER-SEALD VALVES operate instantly with only a Quarter-Turn . . . . at all times and under all conditions . . . in services where extremes of temperature, pressure, or the corrosive action of line fluids would cause ordinary valves to stick or "seize."

They're stick-proof, because built into each valve is a powerful lever and screw device that relieves seating pressure between plug and body just enough to overcome friction and permit easy turning.

You may order HOMESTEAD LEVER-SEALD VALVES in metals and alloys to meet service requirements, in sizes from 1½" to 12" with regular or wedge gate valve face to face dimensions, for pressures from vacuum to 1500 pounds. Complete technical details and Valve Reference Book No. 38 are yours for the asking.

HOMESTEAD VALVE MFG. COMPANY

P. O. BOX 84 CORAOPOLIS, PA.

Mention Item NED-3599 when writing

HOW *Cambridge* WOVEN WIRE CONVEYOR BELTS

REDUCE Handling-- Maintenance **BOOST** Production Rates

This Cambridge Balanced Belt, equipped with # 40 Roller Chain, is used for washing and sorting cranberries . . . a typical Cambridge installation in a food processing plant.

The moving belt permits *continuous* treatment or movement without time-wasting stops at machine stations . . . replaces costly manual labor for handling materials. In most cases one loader is adequate to feed the belt. Maintenance costs fade because Cambridge Belts are specially engineered from any metal or alloy . . . to any mesh or weave . . . that best suits your needs. *Call in a Cambridge engineer today to discuss the proper belt type for your plant.*

WRITE FOR FREE BOOK! "Woven Wire Conveyor Belts for Industrial Applications." 56 pages, illustrated, describing Cambridge Belt construction and use.

Cambridge Wire Cloth Co

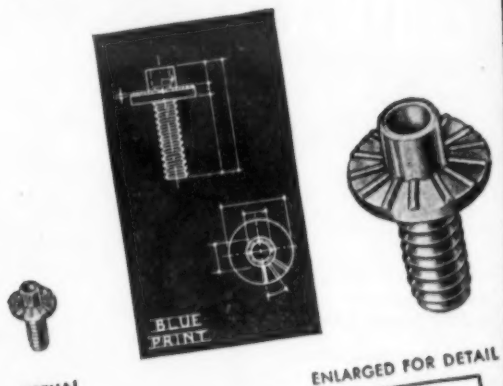
Department C • Cambridge 5, Maryland

SALES OFFICES IN: BOSTON • NEW YORK • BALTIMORE PITTSBURGH • DETROIT • CHICAGO • SAN FRANCISCO • ST. LOUIS

Mention Item NED-3600 when writing

ANOTHER SPECIAL BY PROGRESSIVE

QUALITY PROMCO BRAND



CATALOG SHOWS DOZENS MORE

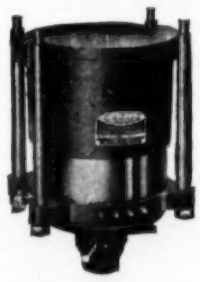
Special heads, threads and finishes on any metal or alloy adapted to cold upset. Weekly output: 25,000,000 pieces. Many specials, suggesting production savings for you, illustrated in latest catalog. Includes weights per 1M standard pieces, dec. equivs. of fractions, other purchasing and engineering helps. Write for Catalog 19.

The **PROGRESSIVE MFG. CO.**

46 NORWOOD ST. • TORRINGTON, CONN.

Mention Item NED-3601 when writing

DIE CUSHIONS THAT MODERNIZE YOUR DIE CONSTRUCTION AND DESIGN



ADAPTABLE TO ALL DEEP DRAWING AND FORMING PRESS OPERATIONS

self-contained unit, quickly installed on any punch press

Furnished with hardened and ground pin pressure pad

DIE CUSHION SIZE	5"	6"	8"	10"	12"	14"	16"
MAXIMUM DRAW (inches)	2"	2½"	3"	3"	3"	4"	5"
DRAW RING PRESSURE (in tons)	.9	1.4	2.5	3.9	5.7	7.7	10.0

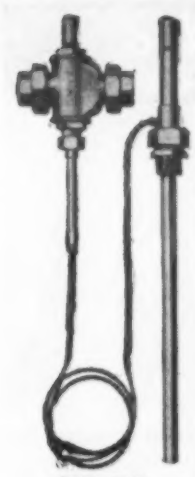
Write for Catalog No. 100-13

DAYTON ROGERS *Manufacturing Company*

MINNEAPOLIS 7, MINN.

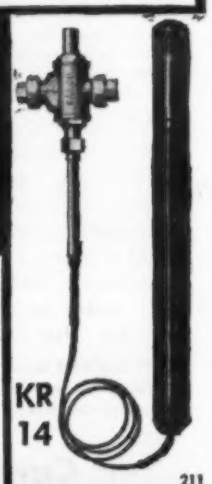
Mention Item NED-3602 when writing

Standard & Special Thermostats & Pressure Switches



SARCO TR-21 operates steam, water, brine and gas valves. Entirely self-contained and self-operated. No electricity, compressed air, etc., needed. Easy to install. For any temperature between 0 and 300° F. Electric controls also available. Catalog 600.

SARCO Temperature Control



SARCO KR-14 temperature regulator is a self-operated liquid expansion type control, packless and easy to install. Used for air conditioning, refrigeration, dryers, ovens, ducts and all types of industrial process work. Temperatures 0° to 300°F. ½ to 8". Catalog 600.

211

SARCO SAVES STEAM — SARCO COMPANY, INC. Empire State Bldg., New York 1, N.Y. SARCO CANADA, LTD., TORONTO 5, ONTARIO

Mention Item NED-3603 when writing

DEPEND ON THE COFFING **QUIK-LIFT** *Electric Hoist*

SPECIAL GEARING SYSTEM HANDLES HEAVIEST LOADS EASILY, SAFELY, AND FAST

- Two Models – Capacities from 500 to 4,000 lbs.
- Heavy Duty Motor
- Hook, Lug or Trolley Suspension
- Positive Shoe-Type Brake
- Fingertip Control

"Heart" of the QUIK-LIFT is this special alloy heat-treated two-gear cam-actuated power unit.

Put a COFFING QUIK-LIFT on the job—watch handling costs come down with this rugged, smooth working electric hoist that's better so many ways.

It's compact; it's durable—requires little maintenance attention. Seventeen capacities and lifting speeds to meet every industrial need.

Bulletin XE-3 Presents Complete Data, Prices and Specifications on the Quik-Lift – Send for It Today!

Other Coffing Products: Safety-Pull Hoists • The Hoist-Jack • Mighty-Midget Puller • Spur-Geared Hoists • Differential Chain Hoist • Load Binders • Trolleys

COFFING HOIST COMPANY
A Quarter Century of Quality • DANVILLE, ILLINOIS

Mention Item NED-3604 when writing

LOW-COST VOLTAGE REGULATION
for feeders handling up to 120 kva

Here is an induction regulator that is ideal for maintaining constant voltage on long secondary feeders of small and medium capacity. Particularly suited to small plants and large office and apartment buildings. Keeps illumination at normal levels where lighting and widely varying power loads are supplied by common feeders.

Available in six kva ratings and for 120 to 600 volts. Will provide 10 per cent regulation, raise and lower, on circuits handling 12 to 120 kva. Fully automatic. Dry-type, natural-draft ventilated—they can be installed indoors without vaults.

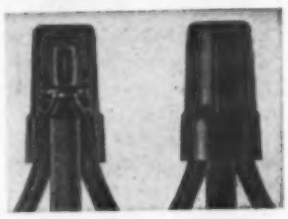
Write for Bulletin GEA-3057B. *Apparatus Department, General Electric Co., Schenectady 5, N. Y.*

Type AIRS induction regulator, typical of size 3.6 kva and smaller

GENERAL ELECTRIC 404-62

Mention Item NED-3605 when writing

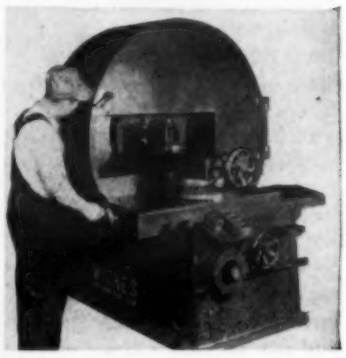
SOLDERLESS CONNECTOR



Capable of connecting three No. 12 solid or stranded wires, this No. PT-66 Sta-Kon Wire Joint is approved by Underwriters' Laboratories for both circuit and fixture wiring. Connector body is bronze and electro-tin plated. To insure that wires are fully inserted, both ends of connector body open for visual inspection. Excess wire is snipped off. As vibrationproof insulating cap of thermosetting phenolic material is tightened, body squeezes into built-in recess at bottom of cap, and wedging action holds wires securely in place. Connectors can be used on production operations. Made by **Thomas & Betts Co.**, 36 Butler St., Elizabeth 1, N. J.

Mention Item NED-3606 when writing

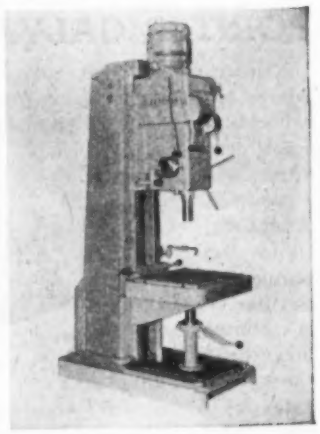
WHEEL RECLAIMING MACHINE



Grinding wheels up to 42 inches in diameter and 14 inches thick can be salvaged for future use by means of this No. B-637 machine. Wheels that have served on one type of grinding machine can be reworked for subsequent use on other operations by turning down outside diameter or sides or enlarging bore. Machine is suitable also for doing angular work. Wide speed range is possible through use of 5-horsepower direct current motor. Overall weight is 10,000 pounds. Made by **Wickes Bros.**, 515 N. Washington Ave., Saginaw, Mich.

Mention Item NED-3607 when writing

DRILLING MACHINE



Featuring fully-enclosed single-unit sliding head which houses spindle, feed mechanism, motor and spindle speed transmission, this Cleereman model No. 325 drilling machine has extreme sensitivity and is adaptable to wide range of operations. All electrical equipment and controls are normally on sliding head. Machine has single lever control with six geared spindle speed changes on one lever and four feed rates on another. Other features include direct-action feed clutch engagement, positive feed depth stop and sensitive spindle. Standard accessories include four-position turret feed trip which can be arranged for automatic cycle control for tapping. Made by **Bryant Machinery & Engineering Co.**, 400 W. Madison St., Chicago 6, Ill.

Mention Item NED-3608 when writing

BIG CAPACITY *Hot Water Booster fits into* **SMALL SPACE**

IN NEW ENLARGED WASHROOMS • • • IN NEW INDUSTRIAL PROCESSES

● Boosting your plant's hot water supply can be done easily and economically with the General Instantaneous Water Heater. Extremely compact, it can be spotted almost anywhere throughout a plant. Economical to install ... no tank, no excavating, no complicated piping. Economical to operate... designed for use with steam through shell ... also, with exhaust steam or below water line on heating boilers.

This space-saving, low-cost heater is available in 12 sizes—capacities 6 to 270 gals. per minute. Piping-hot, rust-free water supplied through seamless copper tubing ... a long life feature. Write for Catalog 18. General Fittings Co., Dept. I, 123 Georgia Avenue, Providence 5, Rhode Island.

GENERAL
TANKLESS AND INDIRECT WATER HEATERS AND HEATING SPECIALTIES

Mention Item NED-3609 when writing

CUT COSTS WITH LAWLOR FLOOR CLEANING EQUIPMENT

SCRUBBERS — WAX POLISHERS
MOP WRINGERS — MOPPING TANKS

Every Lawlor is engineered to save time and labor, to operate smoothly, to clean any floor thoroughly. Made by manufacturers of quality equipment for fifty years; sold and serviced by leading supply houses. Illustrated: Lawlor No. 18 Scrubber Wax-Polisher.

A SIZE TO FIT EVERY NEED

Write for new catalog of complete Lawlor line.

S. C. LAWLOR CO., 131 N. Aberdeen St., Chicago 7, Ill.

Mention Item NED-3610 when writing

PRODUCTION UP 25% to 40%
with ARO tools on assembly lines

The Swartzbaugh Manufacturing Co., Toledo, Ohio, makers of Everhot electrical products, installed Aro screw drivers, nut setters, drills and grinders on assembly lines. Production went up 25% to 40%!

This is one of many companies Aro field engineers have helped to find *faster* and *better* ways to handle tough assembly jobs. Why not let our trained engineers check your assembly problems? Write or wire ... The Aro Equipment Corp., Bryan, Ohio.

Stocked by ARO distributors everywhere

ARO AIR TOOLS

Mention Item NED-3611 when writing

IF YOU USE BOTH A-C AND D-C WELDING...

YOU CAN REDUCE YOUR ELECTRODE INVENTORIES

Westinghouse FLEXARC ELECTRODES Produce High-Quality Welds—A-C or D-C

Why buy electrodes suitable for d-c only, or for a-c only, when Westinghouse Flexarc Electrodes will do the job with either? In almost every instance, one Flexarc Electrode can fill your needs where two would ordinarily be required.

Whether your welding is a-c or d-c, or both, make Westinghouse your electrode headquarters—select your requirements from the most complete line on the market today.

Immediate delivery, from stock, can be had on most types.

See your Westinghouse representative. Westinghouse Electric Corporation, Pittsburgh, Penna.

Westinghouse FLEXARC ELECTRODES *include:*

For Mild Steel— 6 popular types
For Cast Iron— machinable and nonmachinable types
For Low Alloy Steels— 3 types, for cast steel and high tensile rolled steel
For Stainless Steels— 27 types to meet particular needs
For Hard Surfacing— 10 different electrodes, for various requirements

Plus the new Grade 18 Sulcoat Finish Electrode for general-purpose steel welding

And the new Flexarc LoH (Low Hydrogen) Electrode which eliminates "underbead cracking"

J-21440

Westinghouse ELECTRODES FOR SUPERIOR WELDING

Mention Item NED-3612 when writing

Buy all Belt Lacing Needs from 1 Source

Save transportation, clerical and exchange costs by standardizing on ARMSTRONG-BRAY Belt Lacings. Here you can buy both types—(1st.) WIRE-GRIP formed wire belt hooks, on cards, that are applied with any standard make lacer or lacing machine. (2nd.) STEELGRIP flexible strip lacing, that is applied with a hammer.

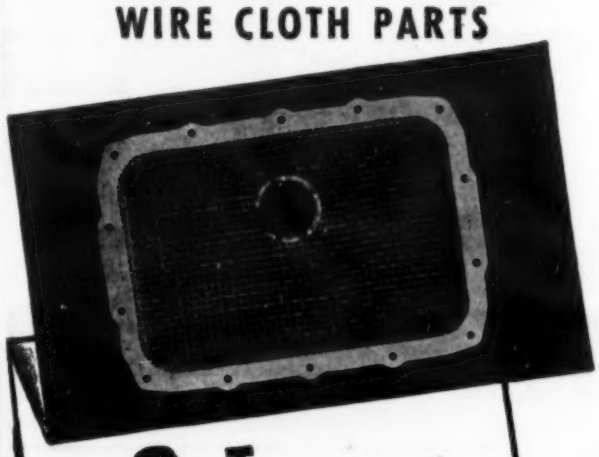
Also STEELGRIP Wheel Pullers for pulling gears, wheels, bearings, etc. from shafts—a complete line, 12 types and 40 sizes with drop forged arms.

Write for catalog
ARMSTRONG-BRAY & CO.
"The Belt Lacing People"
5362 Northwest Highway, Chicago 30, U.S.A.

▲ Mention Item NED-3613 when writing ▲

Durable Accurate

FABRICATED WOVEN WIRE CLOTH PARTS



The manufacture of high quality fabricated woven wire parts is a Newark specialty. If you use screens, filters or strainers in your product, Newark offers the reliability of a "start to finish" responsibility. We manufacture the wire cloth thus assuring uniformity of the finished fabricated part.

The wire cloth is most important for proper screen sizing.

If you have any special problem with the design of the screen part our engineers will be glad to assist you.

NEWARK for ACCURACY

5-NWC-5

Newark Wire Cloth COMPANY
332 Verona Avenue • Newark 4, N. J.

▲ Mention Item NED-3614 when writing ▲

MARKING TOOL

Marking and etching on steel, glass, plastics and other hard surfaces can be accomplished by means of this Vibro-Graver marking tool. Packaged in kit form, tool is supplied with diamond point, tantalum carbide point and ball point for various types of marking operations. It operates on 110-volt alternating current and weighs 9 ounces. Made by **Burgess Battery Co.**, Handicraft Div., Lake Zurich, Ill.

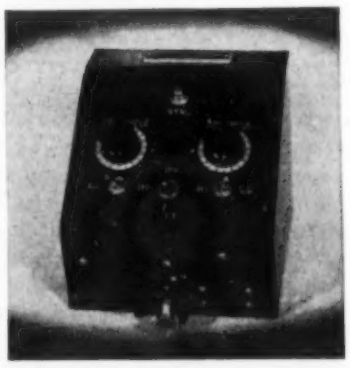
▲ Mention Item NED-3615 when writing ▲

SCAFFOLD BRACKETS

Scaffold platforms can be raised or lowered easily on 4 x 4-inch timber uprights by means of two 'pump' or jack type mounting brackets. Uprights are supported against building or structure by means of simple braces. Raising mechanism employs three grips, any one of which will hold platform under normal load, and is operated by pumping action on lever. Platform is held at desired level by automatic safety lock. Brackets are adjustable to accommodate platform widths of 12, 18 or 24 inches. Made by **Newark Ladder & Bracket Co.**, Walnut & Central Aves., Clark (Rahway), N. J.

▲ Mention Item NED-3616 when writing ▲

REPEAT CYCLE TIMER



Usable for industrial and process control as well as for testing and general laboratory use, model No. 1 repeat cycle timer operates from 105-120-volt 60-cycle power source. It has 'on' interval range of 0.2 to 200 seconds and 'off' period of 0.1 to 60 seconds. Double-pole double-throw relay contacts are rated 10 amperes 115 volts on noninductive alternating current load and terminate at connecting block on front panel of unit.

This electronic device employs radio type vacuum tube and obtains its timing intervals by discharge of two resistance-capacitance combinations in which resistances are independently variable over wide range. Operation is such that one cycle initiates next cycle without use of mechanical elements. Pushbutton is used for synchronizing timer cycle with external equipment with which it may be associated. Made by **G. C. Wilson & Co.**, 2 N. Passaic Ave., Chatham, N. J.

▲ Mention Item NED-3617 when writing ▲

NEED A HIGH SPEED PUMP?

Install an **IMO**

The IMO Pump can be operated at motor and turbine speeds. It is ideal for direct connection and integral mounting. Excepting for the flow and vaporization characteristics of the fluid being pumped, there's practically no limit to the speed at which an IMO Pump can be operated.

IMO Pumps can be furnished for practically any capacity and pressure required for oil, hydraulic-control fluids and other liquids.

Send for Bulletin I-147. W.

IMO means I MOVE OIL

IMO PUMP DIVISION of the
DE LAVAL STEAM TURBINE CO.
TRENTON 2, NEW JERSEY

▲ Mention Item NED-3618 when writing ▲

6 out of 10 manufacturers of original equipment SPECIFY USG

Tomorrow's accuracy is here today in the new U. S. Supergauge. Get complete information about this superb instrument now.

U S INSTRUMENTS Tell The Truth

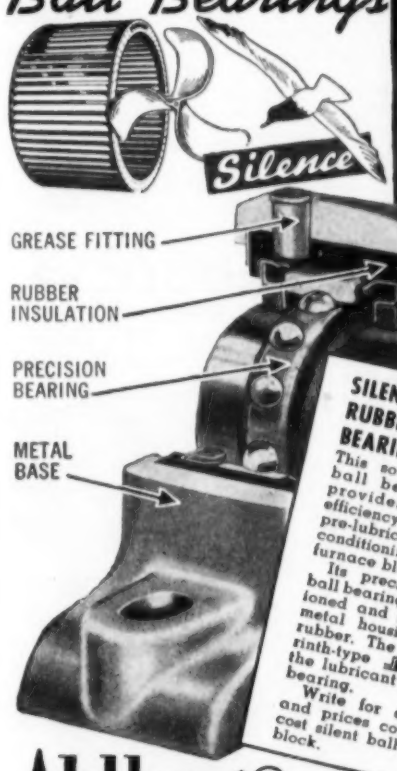
UNITED STATES GAUGE

USG

DIVISION OF AMERICAN MACHINE AND METALS, INC., SELLERSVILLE, PENNA.
Manufacturers of Pressure, Temperature, Flow and Electrical Measuring Instruments

▲ Mention Item NED-3619 when writing ▲

Ball Bearings for AIR CIRCULATING UNITS...FANS and BLOWERS



LOOK

SILENCE ASSURED with EDR RUBBER-INSULATED BALL BEARING PILLOW BLOCK

This sound-insulated Ahlberg ball bearing pillow block provides silent anti-friction efficiency. It is the ideal light pre-lubricated bearing for air conditioning equipment, fans, furnace blowers, etc.

Its precision, quiet-running ball bearing is completely cushioned and insulated from the metal housing with synthetic rubber. The frictionless, labyrinth-type seals retain the lubricant and protect the bearing.

Write for complete details and prices covering this low-cost silent ball bearing pillow block.

Ahlberg *Bearings*
3042 WEST 47th STREET • CHICAGO 32, ILLINOIS

▲ Mention Item NED-3620 when writing ▲

ACCURATE'S *Men and Machines*

are important to you!

. . . they are your assurance of getting the RIGHT spring for the job at lower ultimate cost!

• Modern, precision spring making machines and experienced spring making personnel — this is the combination that guards the uniformly high quality of Accurate springs.

And Accurate goes beyond just making good springs. If you wish, Accurate engineers will sit down with you while your product is still on the drawing board and help you with your spring problems.

Whatever your spring requirements, get in touch with Accurate, today.

SPRINGS
WIREFORMS
STAMPINGS

Accurate Springs

Send for your copy of the new Accurate Spring Handbook

ACCURATE SPRING MANUFACTURING CO.
3805 W. Lake Street Chicago 24, Illinois

▲ Mention Item NED-3621 when writing ▲

THE NEW YELLOW ZINC CHROMATE

METAL PRIMER

for Protecting

RUSTED OR NEW METAL SURFACES

STOP RUST ON OLD
PREVENTS RUST ON NEW

May be Brushed or Sprayed

Write for special literature
Manufactured by

CLARONEX PRODUCTS, INC.
BROOKLYN 22, N. Y.

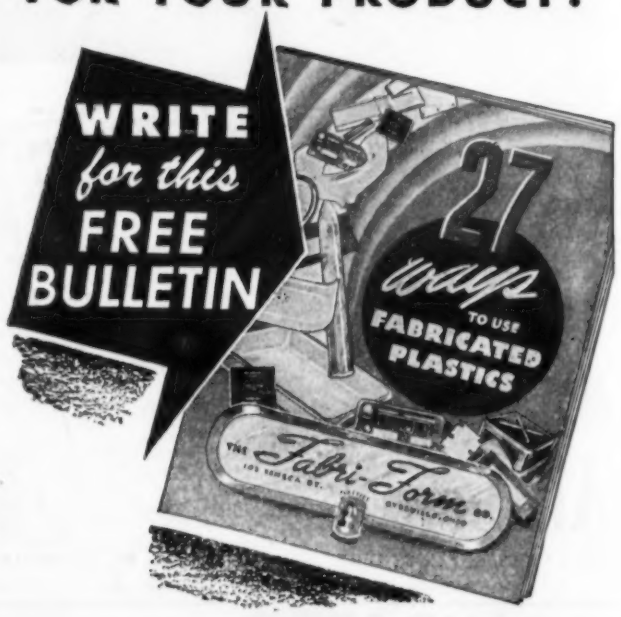
Mention Item NED-3622 when writing

HAVE YOU CONSIDERED

PLASTIC

Fabrication

FOR YOUR PRODUCT?



JUST OFF THE PRESS! Valuable Data from *Fabri-Form* on Custom Plastic Fabrication

How, when, why and where can you use plastics fabrication? This illustrated bulletin gives the answers—supplies valuable information—illustrates parts and products—describes many applications. Write for your FREE Copy!

Check this data—and consider the savings in weight and cost—the added beauty and sales appeal—that Fabri-Form Plastics Fabrication can bring to your product or parts. Our engineers are available for design or consultation service—will give you sound advice and prompt action.

Invitation!
SEND FOR YOUR COPY TODAY!

THE *Fabri-Form* CO.
108 SENECA ST. • BYESVILLE, OHIO

Mention Item NED-3623 when writing

MOTORIZED ERASER

Clean erasures on tracings and drafting room copies can be effected without smudge and in minimum time by means of this 12-ounce Handee power driven eraser. Balanced and shaped to fit hand, it handles with pencil point precision. All moving parts except eraser are covered with protective sleeve. Quick-change eraser chuck accepts any standard eraser. Optional equipment includes foot speed control unit which affords complete freedom of hands in handling eraser and controls 'on' and 'off' position. Made by **Chicago Wheel & Mfg. Co.**, Dept. NE, 1101 W. Monroe St., Chicago 7, Ill.

Mention Item NED-3624 when wrfting

ADJUSTING SCREW

Providing maximum handle leverage for manipulation, this relatively inexpensive double-ball handle screw is suitable for use on food choppers, outboard motors, steel scaffolding, musical instruments of percussion type and other equipment. Handle is about 3 inches long, and screw threads of Nos. 8 and 10, 1/4, 5/16 and 3/8-inch will soon be available. Unit is made of low carbon steel or stainless steel as required. Joint between handle and thread member is projection welded to assure strength greater than metal of members. Made by **Ohio Nut & Bolt Co.**, 608 Front St., Berea, O.

Mention Item NED-3625 when writing

HYDRAULIC PRESS

Two-way, gap type hydraulic press has 5-ton capacity and is capable of exerting pressure on both up and down stroke. It is designed for forming, punching, drawing, broaching, marking, assembling, straightening, pressing and similar operations. Ram down speed is 460 inches per minute, and return speed is 800 inches per minute. Six-inch stroke is adjustable to 1 inch at any position within range. Piston rods are chrome plated, and cylinder cap fittings and packing nut are steel. V-type packing is used on piston rods and valves. Other standard equipment includes water cooler, six-cylinder pump, high pressure by-pass, starter with overload heater and 5-horsepower 220-440-watt 3-phase 60-cycle motor. Made by **Munton Mfg. Co.**, 9398 W. Belmont Ave., Franklin Park, Ill.

Mention Item NED-3626 when writing

COST SAVING *Automatic* Gas Fired Heater

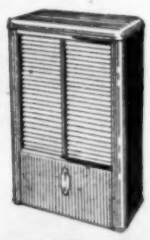
WITH THE BIG, QUIET FAN

Reznor Heaters Maintain Even Temperatures at Less Cost—Overheating and underheating during difficult between-season periods are eliminated by the Reznor heater's positive, automatic control. Predetermined heat is automatically maintained regardless of sudden weather changes. Fuel is saved. Healthful comfort is assured.

ECONOMICAL—EFFORTLESS—Manual firing and hidden costs of other methods are eliminated by the Reznor package of automatic heat. Better yet, the efficient Reznor heat-exchanger yields more heat to the air which is impelled by the BIG QUIET FAN. Write today for prices and delivery schedule.

SUSPENDED OR FLOOR MODEL
A SIZE FOR EVERY NEED

REZNOR
Gas fired unit heaters



REZNOR CO. MERCER 14, PENNA.
GAS FIRED HEATERS SINCE 1888

NO BOILERS • NO STEAM LINES
NO FUEL STORAGE • NO FIRE TENDING

Mention Item NED-3627 when writing

MASTERCRAFT
ROTARY SLIDE MILLING TABLE

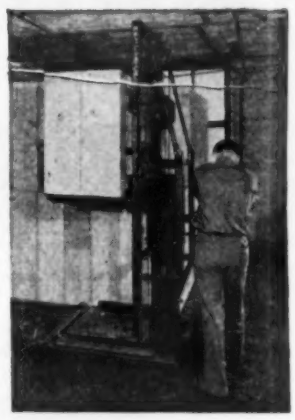
On the lathe face plate, miller table, or drill press are countless jobs more easily and quickly performed with a MASTERCRAFT Rotary Slide Milling Table. Drilling guesswork with the use of dividers, scale or centerpunch for the precision spacing of holes is eliminated by the micrometer dials. Clamped to the lathe face plate, the table with its compound slides permits work to be set over for precision boring and turning. As a miller auxiliary, it is valuable for jobs requiring rotary movement of the work table for angular indexing. Now manufactured in Series 500, 600, 700, and 800 to cover a wide range of service for all industry, including the hobbyist and the home work shop. Available for immediate shipment.

F & M Sales Co.
1054 Cahuenga Boulevard, Hollywood 38, Calif.

Mention Item NED-3628 when writing

REVOLVATOR
REG. U. S. PAT. OFF.
PORTABLE ELEVATORS

NEVER A SICK DAY!



REVOLVATORS are not temperamental. They are strong and simple in construction—will not break down under heavy loads or constant use. Pile materials with these mechanical men, and furnish additional protection to your live men from rupture, strain, and overfatigue. REVOLVATORS save time and money too.

Electric models for heavy, continuous work: inexpensive, light hand machines for occasional use or where electric current is not available. Lift any practical size and weight to any practical height.

Send for illustrated bulletins.

RED GIANT LIFTRUCKS work well with REVOLVATORS. They are safe, durable, economical.

REVOLVATOR CO.
DESIGNERS AND MANUFACTURERS OF MATERIAL HANDLING EQUIPMENT
8732 Tonnelle Ave., North Bergen, N. J. Since 1904

Mention Item NED-3629 when writing

This big, sturdy band saw sets new standards in metal cut-off

Cuts all the time—continuous cutting with no time-wasting motion. Higher speeds possible due to extreme rigidity of bed, wide guide rolls supporting blade, and extra large band wheels which minimize bending and twisting stresses on blade. Resultant greater accuracy in cut saves machining time, tools and metal—and saves saw blades too.

Saves operator time — cuts without attention with hydraulic feed adjustment, stops automatically at finish of job. Has quick-operating vise, controls handily placed, length stop for duplicate work. Four selective speeds. Three point support for positive stability. Casters optional.

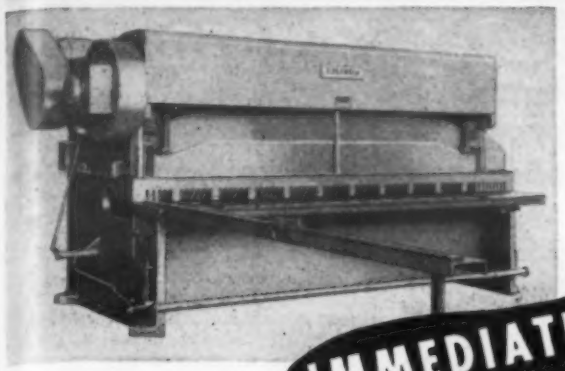
JOHNSON *metal cut-off* BAND SAW

Extra large capacity—10" high 18" wide. Wet cutting model illustrated. Dry cutting type available.

Write for catalog and for the address of the dealer nearest you who can show you this machine.

JOHNSON MANUFACTURING CORP.
621 CHRYSLER BLDG.,
NEW YORK 17, N. Y.

Mention Item NED-3630 when writing



IMMEDIATE DELIVERY

Columbia STEEL SQUARING SHEARS

for more efficient and economical shearing

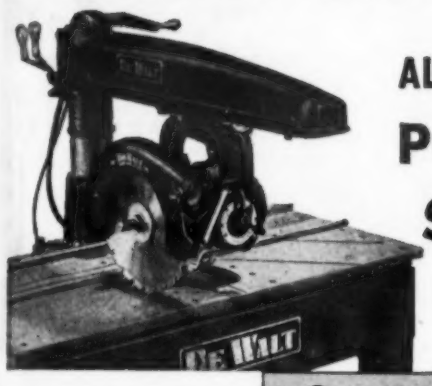
No Nicking or Tearing when trimming sheets longer than blades.

No Adjustments necessary to change manner of shearing.

Rigid-welded, rolled-steel construction, solid, positive clutch, heat-treated, forged eccentric; precision cut gears operate in oil; centralized lubrication, stainless steel scales, many other advanced design features 10 and 12 foot models for 3/16′ mild steel; 6 and 10 foot models for ¼″ mild steel. Write for Bulletin Columbia Machinery and Engineering Corp., Hamilton, Ohio.

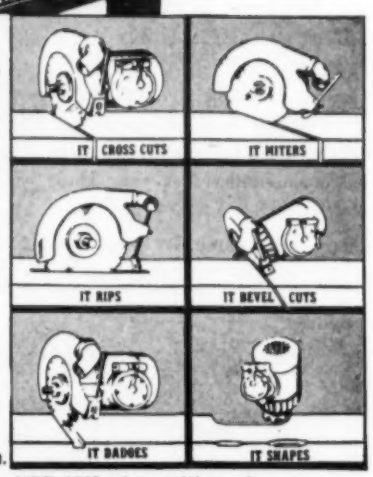
▲ Mention Item **NED-3631** when writing ▲

THE NEW DEWALT



ALL-PURPOSE POWER SAW!

Does the work of *many* machines! Accurate, flexible, dependable—precision built for continuous service. Write for catalog.



DEWALT INC.
195 Fountain Ave., Lancaster, Penna.

▲ Mention Item **NED-3632** when writing ▲

SPARKLER *Horizontal Plate* FILTERS *for all liquids*

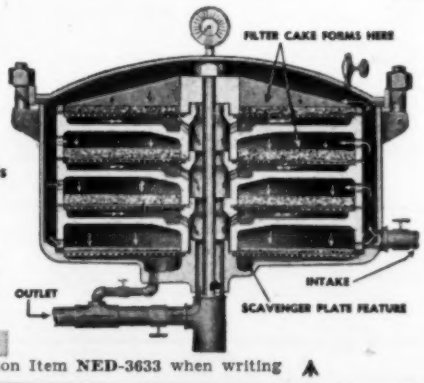
Filter media are supported on horizontal plates and filter aids floated into position uniformly — filtration takes place uniformly over entire filtering areas. Flow through filter is always with gravity.

- Equally efficient performance on intermittent or continuous operation, under a wide range of temperature, pressure or viscosity conditions.
- Equally effective whether removing carbon and contact clays or clarifying and polishing with filter aids.
- Patented Scavenger Plate permits complete batch filtration. (It's virtually an auxiliary filter with an independent control valve.)
- Unexcelled filter cake stability—no slipping or breaking.

SPARKLER MANUFACTURING COMPANY
Mundelein, Illinois

Sparklers filter these products and many more:
Acids, Alcohols, Alkalis, Beverages, Candy scrap, Chemicals, Extracts, Flavors, Gums, Milk, Molasses, Oils, Pharmaceuticals, Syrups, Water, Wines

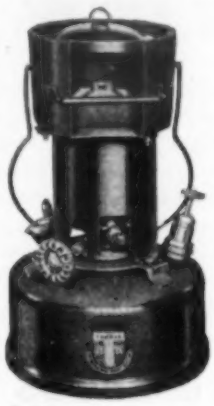
Our Engineering Service is available for any specialized problem.



▲ Mention Item **NED-3633** when writing ▲

LOW-PRESSURE FIRE POT

Featuring smokeless, sparkless and sootless operation, this No. 475 low-pressure tinner's fire pot incorporates carburetor control for maximum combustion efficiency, flame control and soldering iron rest which keeps points of soldering coppers out of direct flame. It can be generated in 5 minutes, can be used in strong wind and has fuel capacity of 1-gallon which operates fire pot for 9 hours. Burner coil is fabricated from extra-heavy seamless steel tubing and is protected by outer jacket that maintains heat without overheating. Orifice cleaner is controlled automatically. Entire unit can be cleaned quickly because of readily accessible parts. Made by **Turner Brass Works,** Sycamore, Ill.



▲ Mention Item **NED-3634** when writing ▲

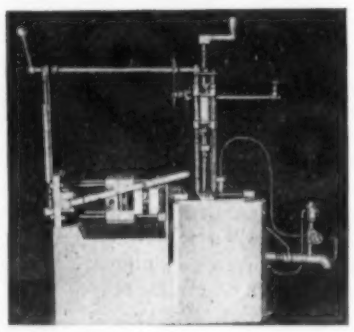
UNIVERSAL GRAB

Suitable for handling all types of heavy boxes, crates, bales or other loads on which hooks can be used, this universal grab has adjustable spread to accommodate widths ranging from 16 to 48 inches. Grab is available in two sizes with capacities of 1000 and 2000 pounds. Heavy forged steel hooks are so arranged on ⅜-inch chain that grip becomes tighter as load increases. Made by **Palmer-Shile Co.,** 16015 Fullerton Ave., Detroit 27, Mich.

▲ Mention Item **NED-3635** when writing ▲

SMALL DIECASTING MACHINE

Small production model AHH-1 semiair diecasting machine accomplishes metal injection by air pressure through immersed injection piston assembly. Machine casts zinc, lead and tin base alloys through center gate. Dies are opened and closed by hand, and ejection of castings after solidification is manual also. Machine is capable of operating at 500 cycles per hour.



Gas burner equipped, machine requires 330,000 British thermal units per hour. Oil burning assembly can be furnished. Volume of 8 cubic feet of air per minute is required to operate unit at maximum speed. Normal die dimensions are 6 x 10 inches, dimension between dies is 5 inches, and maximum die thickness is 6 inches. Standard die blocks are available to meet individual specifications. Made by **H. L. Harvill Mfg. Co.,** P.O. Box 177, Corona, Calif.

▲ Mention Item **NED-3636** when writing ▲

FJS
F. J. STOKES MACHINE CO.
Est. 1895

STOKES HIGH VACUUM PUMPS

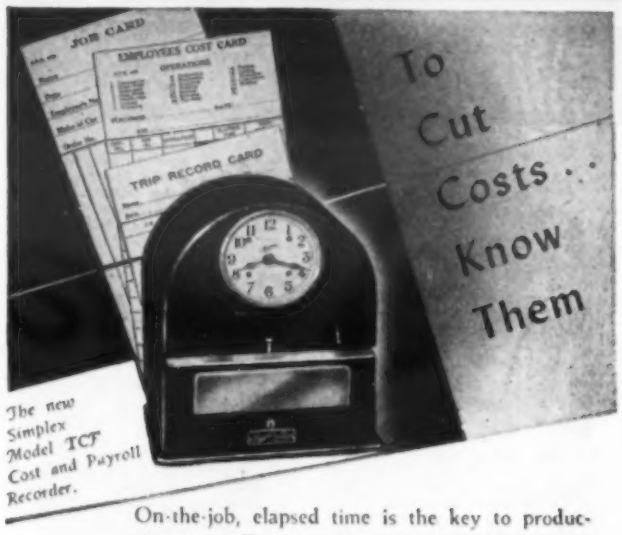
High vacuum is necessary in drying blood plasma and penicillin, for distilling vitamin oils, preparing drugs and foods, evacuating radio and light bulbs and in many other applications.

Stokes Microvac High Vacuum Pumps produce and maintain vacuum within a few microns of absolute. Use them wherever pressures lower than 50 mm. (28″) are required. They are modern pumps, economical and dependable, with highest volumetric efficiency, low electrical power requirements, only four internal moving parts and many other exclusive features.

Available in sizes from 10 to 235 cu. ft. per minute. Ask also about Stokes Patented (McLeod type) High Vacuum Gages. Write for complete information and catalog.

F. J. STOKES MACHINE COMPANY
5964 Tabor Road, Philadelphia 20, Pa.
Offices in: New York, Chicago, Cincinnati
Pacific Coast Representative: L. H. Butcher Company, Inc.
Agents in Principal Foreign Countries

▲ Mention Item **NED-3637** when writing ▲



The new Simplex Model TCF Cost and Payroll Recorder.

On-the-job, elapsed time is the key to production costs. To cut unit costs, control your time units. With a Simplex Cost Recorder on the job an accurate cost record is always on hand, and considerable paper work is eliminated.

The Simplex Model TCF is also an ideal payroll recorder for small shops.

For complete details write for folder # 136-N.

SIMPLEX TIME RECORDER CO.
GARDNER, MASSACHUSETTS
Branch Offices or Agencies in Principal Cities

Time, More Than Ever Today, Is Money!

▲ Mention Item **NED-3638** when writing ▲

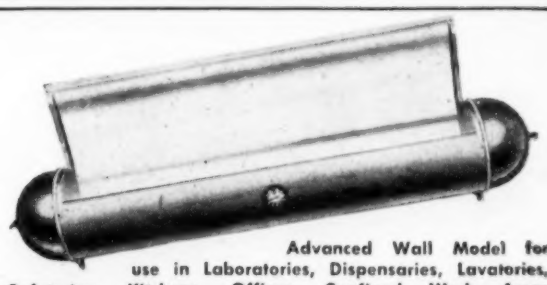
For Access Panel and Door Assemblies

QUICK-LOCK speeds up mounting and demounting detachable panels. A 90° turn locks and unlocks it in a jiffy. Flexible mounting and tapered stud makes it ideal for assembling curved sheets and insures a tight fit when locked. Stud is self-ejecting when unlocked. Minimum deflection is assured—only initial loads are carried by the helical spring. Solid supports take up increased loads.

Call in a Simmons Engineer and compare QUICK-LOCK's economy with your present fastening method.

SIMMONS FASTENERS
SIMMONS FASTENER CORPORATION • 1787 NORTH BROADWAY, ALBANY, N. Y.

▲ Mention Item **NED-3639** when writing ▲



Advanced Wall Model for use in Laboratories, Dispensaries, Lavatories, Cafeterias, Kitchens, Offices, Confined Work Areas

NOW Air Disinfection for Industrial Plants

Protector, outstanding name in germicidal control lamps, is well known to top management in many varied industries. This powerful germicidal lamp destroys bacteria. By preventing contamination of air it greatly reduces the possibility of respiratory infection and eliminates costly absenteeism. The ultraviolet rays also prevent germination of airborne spores that form molds and fungi. Food work-areas are protected.

For further information on installations you may have in mind, write:

GERMICIDAL LAMP DIVISION
C-B TOOL COMPANY • LANCASTER, PA.

4-Watt Cabinet Model for First-Aid, Instrument and Biological Cabinets

▲ Mention Item **NED-3640** when writing ▲

FASTER CUTTING — WET or DRY with CLIPPER MASONRY SAWS

You'll be amazed how quickly and easily you can cut virtually any special length or shape from the hardest masonry materials. Clippers save Time — Save Material and assure better workmanship on every job. Yes, you can cut wet or dry with equal ease.

The new HD-48 Clipper cuts dry just exactly the same as regular Clipper Masonry Saws . . . and for DUSTLESS masonry cutting, just turn the control valve and use the circulating water system.

CLIPPERS FOR EVERY JOB
Priced as low as $195 . . . all with the exclusive Clipper design proven throughout the world for 10 years, and . . . guaranteed to provide the fastest cutting Speed with lowest cutting cost.

FREE TRIAL . . . Write for Catalog TODAY!

THE CLIPPER MFG. CO.
WARWICK at 28th • KANSAS CITY 8, MO.
Philadelphia • Cleveland • St. Louis • Austin, Tex.

Mention Item NED-3642 when writing

THIS NEW MADISON ROUGH BORING TOOL SLASHES HOLE COSTS!

This new Madison Rough Boring Tool is the fastest changing, fastest cutting boring tool made. Team it with the Madison Reaming Cutter for accurate, finely finished, low cost holes. Like Madison Reamers, the Roughing Cutter is easily set to decimal sizes within its range. Because cutters may be presized, disturbance of the setup is unnecessary when inserting a ne wor sharpened cutter in the bar.

The Madison locating feature automatically centers cutter in the bar, equalizing the load on cutting elements.

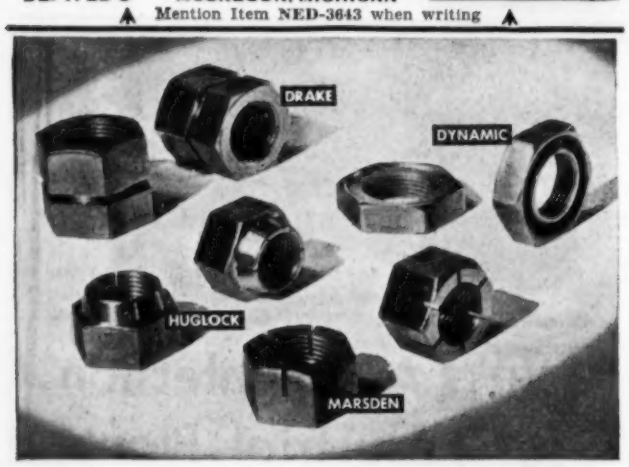
The cutter block is formed by the Madison cutting blades themselves. This exclusive Madison feature creates a more rugged cutter with no delicate mechanisms or separate parts. Madison Roughers have been used to bore holes as large as 17.590 and are made in the smaller range to 1" size.

These exclusive Madison features of simplified design are the reasons why the new Madison Rough Boring Tool performs with amazing speed. On field tests, stock removal requiring three passes with a conventional single point tool was executed in one pass with this new Madison Rougher.

Write for the Madison catalog today. Get the facts on Madison Boreamers, the tools that make one operation out of boring and super finish reaming.

MADISON
MANUFACTURING COMPANY
DEPT. ED-5 MUSKEGON, MICHIGAN

Mention Item NED-3643 when writing



Self-locking LOCK NUTS *that won't shake loose*

THESE 4 TYPES FIT EVERY FASTENING PROBLEM

"DRAKE"—to withstand severe stress, shock or vibration.

"DYNAMIC"—to withstand shear only.

"HUGLOCK"—to withstand shock-loading or vibration—even under heat, oil or moisture.

"MARSDEN"—for effective locking at minimum cost.

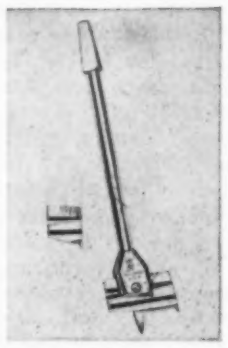
National Screw and Thread Products

Write today for LOCK NUT Booklet containing complete design and engineering data.

THE NATIONAL SCREW & MFG. CO., CLEVELAND 4, O.

Mention Item NED-3644 when writing

ADJUSTABLE BIT



Using two blades, clean-cutting model No. 251 CC expansive bit has drilling capacity of ⅞ to 3 inches in soft or hard wood. Of sturdy construction, bit has 8¼-inch chrome-moly steel shank with square bit shank for use in hand brace. Heat treated blades are calibrated for rapid and accurate adjustment. Standard ¼-28 thread set screw provides positive lock so that blade slippage is eliminated. Priced at $1.98, bit is individually packaged with two blades. Made by **Robert H. Clark Co.**, 9330 Santa Monica Blvd., Beverly Hills, Calif.

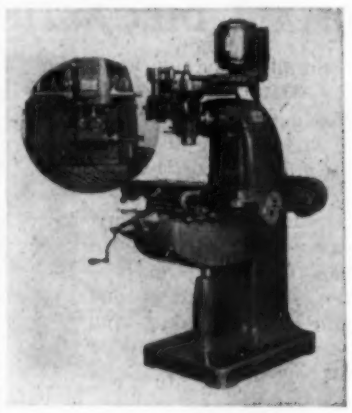
Mention Item NED-3645 when writing

LUMINOUS TUBE POWER UNIT

Of Compact design, line of series 727 indoor, hanging, luminous tube transformers includes both cord and plug models and types for use where local restrictions prohibit plug-ins. Latter type has ½-inch threaded pipe fitting for rigid conduit or flexible conduit conections and is provided with 48-inch leads. Standard switch and pull chain are employed. All models are available in 9000, 7500, 6000 and 5000-volt, 18-milliampere ratings. Made by **Jefferson Electric Co.**, 903 S. 25th St., Bellwood, Ill.

Mention Item NED-3646 when writing

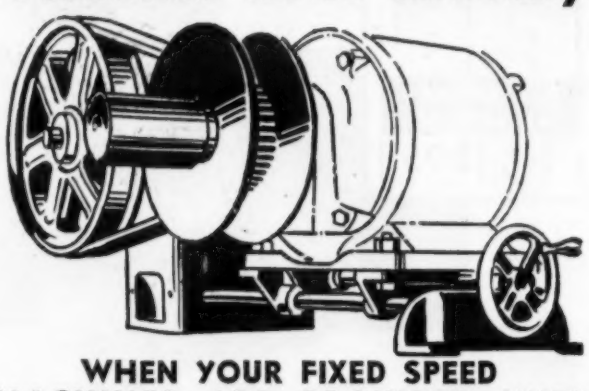
VERTICAL MILLING MACHINE



Suited for vertical and horizontal milling as well as boring and drilling operations, this model No. 50 high speed vertical milling machine has wide range of working capacity. Quick-change full-geared table feed mechanism delivers power to 8 x 34-inch table through splined feed shaft. Vertical, horizontal and transverse table speeds can be varied infinitely, and twelve cutter speeds up to 2400 revolutions per minute can be attained. Right-angle milling head facilitates change-over from vertical to angle milling without disturbing work. Unit can be used also as cutting arbor or tool holder. Other features include precision ground lead screws, easy-to-read angle dials, automatic controls and full line of accessories. Made by **Index Machine Co.**, 543 N. Mechanic St., Jackson, Mich.

Mention Item NED-3647 when writing

Production flows smoothly



WHEN YOUR FIXED SPEED MACHINES ARE PROVIDED WITH

LOVEJOY

VARIABLE SPEED PULLEYS

Lovejoy Variable Speed Pulleys assure that you will get uninterrupted service from your fixed speed machines. No time wasted changing belts and gears. And machine output will be at its maximum, too, because each job calls for its particular speed of operation. Available from 1 to 8 h.p. Ratios 3 to 1. For V-Belts and Wide V-Belts.

WRITE FOR LOVEJOY CATALOG
Also shows "Select-O-Speed," Wide V-Belts, Adjustable motor bases, Wide V-Belt sheaves.

LOVEJOY FLEXIBLE COUPLING COMPANY
5003 W. Lake Street Chicago 44, Illinois

Mention Item NED-3648 when writing

Century MOTORS' Complete Line Aids Proper Application —Helps Keep Production Moving

The line of Century Motors is so complete that you can select the *right* motor for all popular applications.

Your motor driven machines may require high, low or normal torque; single speed, multispeed or variable speed; a.c. or d.c. current; open, splash proof, enclosed or explosion proof construction. Most of the popular combinations of these electrical characteristics and frame designs are built by Century.

Many maintenance men say that improper motor selection is too often the cause of production failures. You can reduce these expensive shutdowns by selecting the right Century Motor.

Century builds a complete line of fractional and integral horsepower electric motors and generators in sizes from 1/6 to 400 horsepower to meet the requirements of industrial production, commercial and appliance needs.

Specify Century for all your electric power needs.

CENTURY ELECTRIC CO.
1806 Pine Street, St. Louis 3, Missouri

Century Motors

Offices and Stock Points in Principal Cities

540

Mention Item NED-3649 when writing

ANNOUNCING...

THE NEW Thor STANDARD DUTY 7" SANDER

50% More power than any other sander in its weight class! . . . Rubber bumper guard . . . spindle lock for quick disc change . . . the industry's most advanced sander. Ask your Thor distributor!

INDEPENDENT PNEUMATIC TOOL COMPANY
600 W. Jackson Boulevard, Chicago 6, Illinois
BRANCHES IN PRINCIPAL CITIES

Thor PORTABLE POWER TOOLS

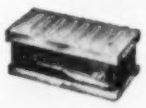
Mention Item NED-3650 when writing

NEW ADDITIONS TO THE BROWN & SHARPE LINE OF PERMANENT MAGNET CHUCKS

NEW SMALL SIZES — NEW FEATURES

No. 5R Rotary Model . . . smallest B & S rotary model. Holds work from ¾" to 5" diam. Control ring is operated from any position in which chuck stops. Amount ring is turned governs holding strength.

No. 7R Rotary Model . . . holds work from 1 3/16" to 7" diam. Also permits variation of holding strength by the amount operating handle is turned.



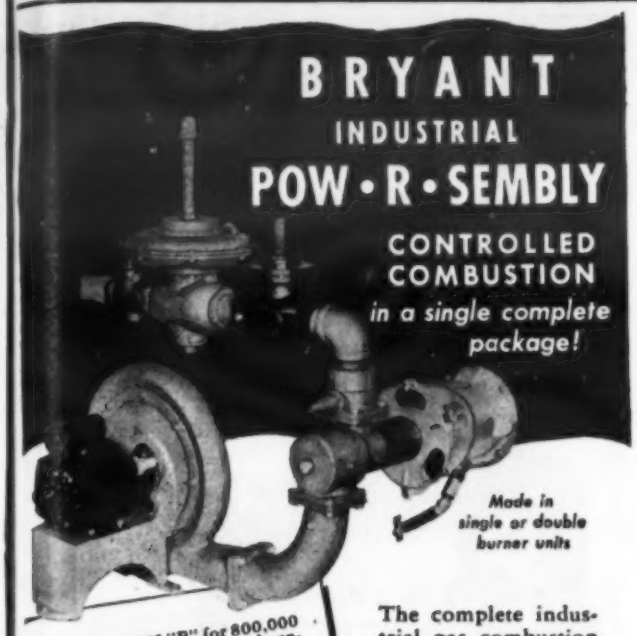
No. 408 Rectangular Model . . . has 4" x 8" working surface. Pole spacers closer than on other rectangular models, hold smaller pieces.

No. 412 Two-Line Rectangular Model . . . has 4" x 12" working surface and two line pole spacers. Useful for grinding rows of small as well as larger parts.

For sale only in the United States of America and its Territories. For complete details, write Brown & Sharpe Mfg. Co., Providence 1, R. I., U. S. A.

B·S
BROWN & SHARPE

Mention Item NED-3651 when writing



BRYANT
INDUSTRIAL
POW • R • SEMBLY
CONTROLLED COMBUSTION
in a single complete package!

Made in single or double burner units

Model 241PH "B" for 800,000 btu/hr., complete single burner unit, ready for controls: $295.00 FOB Cleveland. (Other sizes and arrangements $205.00 to $1500.00, capacities 400,000 to 3,300,000 btu/hr.) Write for folder ID-257.

The complete industrial gas combustion unit for furnaces, air heaters, etc. Manual or automatic control ... adjustable for hard or soft flame. Burns any type of gas!

BRYANT HEATER COMPANY • INDUSTRIAL DIVISION
1020 London Road, Cleveland 10, Ohio

▲ Mention Item NED-3652 when writing ▲

You know how tight with APCO TENSION DRIVER

● HERE'S THE DRIVER you've been waiting for . . . a rugged, fool-proof, ratchet-free torque tool that'll save you many an hour on scores of different assembly jobs. Broken screw days are over when you use APCO.

Just check the safe load on the free chart supplied with every driver and go to work. Four big, easy-to-read brass dials let you see the exact torque from *any* position.

Every driver supplied with three fine tool steel heads to adapt the driver instantly to slotted, Phillips or ¼" socket drives.

Send for descriptive circular today ... or better still, order one and see for yourself now the easy way this *new* APCO TENSION DRIVER saves you time, material and accidents.

$5.95

No. B-25. 0-25 inch pound. Length 12". Weight ¾-lb. Non-slip, non-chip, non-conductor handle.

APCO MOSSBERG CO.
Attleboro, Mass., U. S. A.

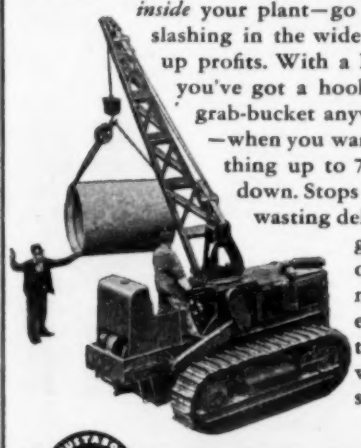
▲ Mention Item NED-3653 when writing ▲

Reduce Costs Outdoors as Well as In with

ROUSTABOUT CRANES

The fast tractor-footed load-hustlers

● Don't stop at cutting materials handling costs *inside* your plant—go outside and start slashing in the wide expanses that eat up profits. With a Roustabout crane you've got a hook, a magnet, or a grab-bucket anywhere you want it —when you want it. Handles anything up to 7½ tons, uphill or down. Stops costly, manpower-wasting delays. Modernly engineered for years of overwork . . . mounted on crawler or wheel tractors. Write for the whole efficiency story—to Dept. P-3.



HUGHES-KEENAN CORPORATION
MANSFIELD, OHIO, U. S. A.
Load-Handling Specialists since 1904

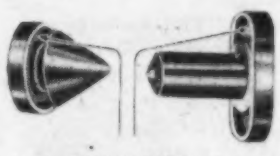
▲ Mention Item NED-3654 when writing ▲

TUBE CUTTING-FLARING UNIT

Motor powered tube cutting and flaring machine handles any length of tubing in sizes from ¼ to ¾-inch outside diameter. Machine cuts, flares and trims copper or aluminum tubing accurately in one operation and is capable of making more than 5000 flares in 8-hour working period. By installing wedging mandrel in place of flaring mandrel, operator can perform standard swedging operations also. Machine is powered by 1/3-horsepower motor. Made by **C. J. Unger Mfg. Co.**, 344 Xenia Ave., Dayton 10, O.

▲ Mention Item NED-3655 when writing ▲

RUBBER DOOR SILENCERS



PNEUMATIC CHAMBERS

Molded from either black or white rubber, these G-J pneumatic rubber silencers are designed to prevent latch rattle in doors, to serve as silencers for drawers and to use on office furniture. Unit shown at left of illustration is intended for application on metal door frames and furniture, and other is for use on wood frames. Door in closing compresses rubber and forms air pocket which gives added cushioning effect. Usually three silencers are installed on vertical stop strip, one near top, one centered above door latch and third at bottom. Units will not work loose and are waterproof. Made by **Glynn-Johnson Corp.**, 4422 N. Ravenswood Ave., Chicago 40, Ill.

▲ Mention Item NED-3656 when writing ▲

FASTENING DEVICE

Fastening of corrugated metal sheeting to steel purlins and framing can be accomplished by means of this Rivweld stud. This shoulder type fastener is applicable also for securing inner shells of boiler units. In corrugated roofing applications, studs are end-welded in position with Nelson stud welding gun after locating with lightweight template. Operator works from topside only, and no rigging or scaffolding beneath roof is required. After studs are welded, corrugated sheet is placed over studs, and stud extensions are driven through sheets by means of rubber hammer. Extensions are then upset and rounded off cleanly with machinist's hammer and ordinary rivet set. Side laps between purlins are secured by self-tapping screws.

This shoulder type stud can be used also as spacer while securing two plates together, as on boiler applications where stud is end-welded to inner shell through hole drilled in outer covering. Made by **Nelson Sales Corp.**, 2695-A Toledo Ave., Lorain, O.

▲ Mention Item NED-3657 when writing ▲

Stanzoils
Grip Under Oil

Positive-Grip fingers speed work!

... Hands safe from costly injuries!

Extra production news! *Amazing new positive-grip finish on Stanzoils holds wet slippery objects as if dry,* gives workers confidence and speed. Dependable hand safety in Pioneer-processed DuPont neoprene, long lasting in oils, acids, etc. . . . low hourly cost. Black, white; standard styles, sizes. Prevent injury claims, increase output — insist on Stanzoils from your supplier, or write for catalog.

Synthetic Rubber Division
The Pioneer Rubber Company
248 Tiffin Road Willard, Ohio, U. S. A.
Los Angeles

STANZOIL BY PIONEER

OVER *30 Years* OF QUALITY GLOVE MAKING

▲ Mention Item NED-3658 when writing ▲

NEW-BAKER 1000 lb. ELECTRIC FORK TRUCK

only $2791
including BATTERY *and* CHARGER
(Truck with battery only $2441)

● Narrow aisles, limited floor-loading capacity, congested areas, small and low-capacity elevators no longer need deprive plants of the advantages of mechanized handling with electric fork trucks. Designed to meet these specific problems, this new truck finds application wherever loads may be limited to 1000 lbs. Its low price makes it possible to use fork trucks and pallets on many applications for which the cost of equipment, in the past, was not justified. Total weight with load 3805 lbs.

For complete information get in touch with your nearest Baker representative or write us direct.

BAKER INDUSTRIAL TRUCK DIVISION
of The Baker-Raulang Company
2179 West 25th Street • • • Cleveland, Ohio

Baker INDUSTRIAL TRUCKS

▲ Mention Item NED-3659 when writing ▲

Barber-Greene

UNLOADS A CAR OF STONE, GRAVEL, SAND, COKE, COAL IN 45 MINUTES

358 HOPPER-CAR UNLOADER

Here is the versatile car unloader — capable of unloading a hopper car in 45 minutes — ideal for steam coal, coke, or other abrasive materials. A heavy-duty, all-material unloader, the 358 features a non-slip, non-plugging belt, precision transmission, antifriction bearings . . . is equally efficient over the rails or in track pits. Capacity up to 3 tons per minute.

FOR LOW-COST, HIGH CAPACITY STOCK PILING AND RECLAIMING

363 BELT CONVEYOR

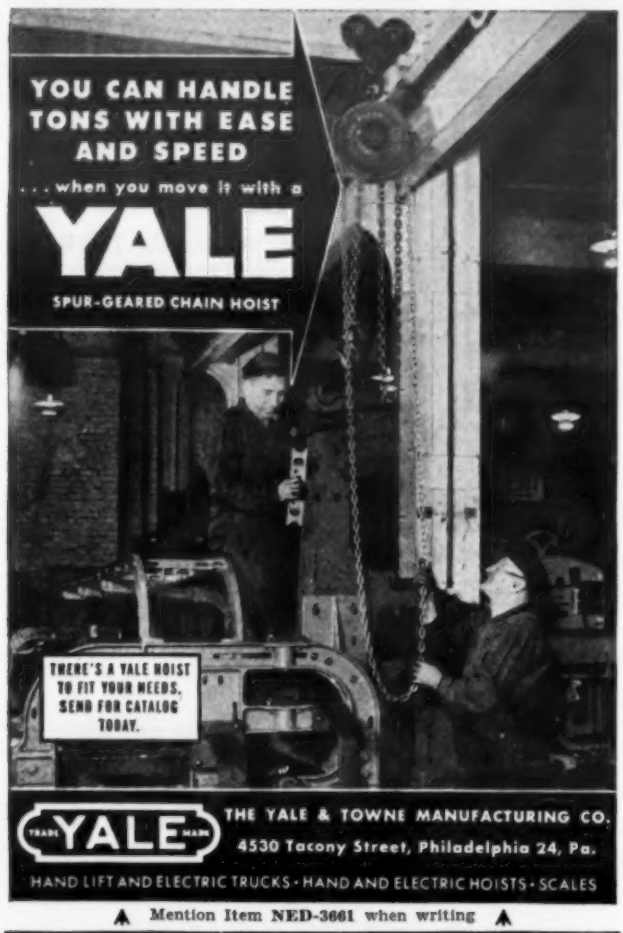
Here's the newest portable conveyor on the market! The 363 is a high-capacity one-man unit that will pay for itself on large or small jobs by reducing costly truck waiting time, speeding unloading and reclaiming work. Its advanced B-G design includes the sturdier yet lighter stair channel construction and features a removable tail pulley cover. Plain or cleated belt.

See your B-G Distributor! Ask him for Bulletin 358 and take advantage of the services of his material handling specialists. Or write to . . .

BARBER-GREENE COMPANY • AURORA, ILLINOIS

Barber-Greene
Constant Flow Equipment

▲ Mention Item NED-3660 when writing ▲



YALE THE YALE & TOWNE MANUFACTURING CO. 4530 Tacony Street, Philadelphia 24, Pa.
HAND LIFT AND ELECTRIC TRUCKS · HAND AND ELECTRIC HOISTS · SCALES

▲ Mention Item NED-3661 when writing ▲

TRUCK SPECIALISTS

BAL BUILT WITH A CONSCIENCE

Made of thick hard vulcanized fibre, steel hardware, oak bottoms, maple reinforced. *Built for years of service.*

WE ALSO MAKE **sturdy fibre TOTE BOXES**

RACK, SHELF or BIN TYPES

Made in standard sizes, or to order, by *specialists* with a reputation for quality. Give dimensions wanted; ask us to quote!

WILLIAM BAL CORPORATION
9 Johnson St.
NEWARK-2-N. J.

▲ Mention Item NED-3662 when writing ▲

Room for Profit Overhead

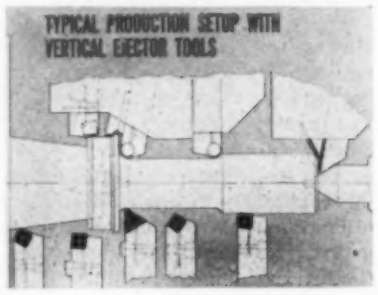
Your costs will come down when you install Buschman Universal Cable Type Trolley Conveyors overhead. At the same time save valuable space for production, assembly and storage.

Floor or ceiling mounted in one plane or with dips from floor to floor. Simple field installation. No welding required. Representatives in principal cities. Write for bulletin No. 40.

Buschman
THE E. W. BUSCHMAN CO., INC.
Spring Grove at Winton Place Cincinnati 32, Ohio

▲ Mention Item NED-3663 when writing ▲

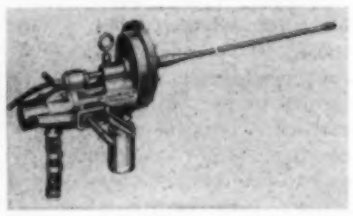
EJECTOR TOOL INSTRUCTION



Entitled "Advantages and Economies of Ejector Type Tools with Carbide Inserts", this instructive slide film shows features of both horizontal and vertical type tools. Horizontal type ejector tool in straight and offset styles and vertical type with square, round, triangular and rectangular carbide inserts are covered. Details of typical set-ups and operations are shown. Film is available on loan without cost and, if desired, an engineer with projection equipment will present film and conduct question and answer period. Write to **Super Tool Co.**, 21640 Hoover Rd., Detroit 13, Mich.

▲ Mention Item NED-3664 when writing ▲

TUBE CLEANER

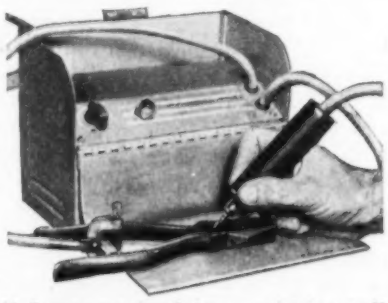


Designed to remove extremely bad scale deposits in heat exchanger and condenser tubes from ⅜ to 2½-inches inside diameter, model No. CC-325 geared tube cleaner is particularly effective where conditions require low speed and extreme power. Motor operates at speeds up to 800 revolutions per minute, and unit will clean tubes even though they are completely closed with scale.

Various types of drills are available to suit requirements. Flushing system cools drill at same time loosened scale is removed. Positive control is provided by valve on handle. Muffler which eliminates noise without reducing cleaner's power is available. Made by **Airetool Mfg. Co.**, 210 Shuey Bldg., Springfield, O.

▲ Mention Item NED-3665 when writing ▲

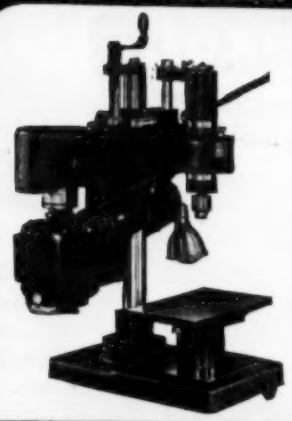
ELECTRIC ETCHING UNIT



Capable of marking on steel, iron or their alloys regardless of hardness, this Universal model electric etcher is portable self-contained unit that operates on 115 or 230-volt current. Smooth, permanent marks can be burned in metal surface to identify tools, instruments and parts; tradename products; and to mark stock, part numbers, sizes, models, voltages or other data. When cover of metal case is opened, it forms work plate on which small parts can be placed for etching. Ground C-clamp is furnished for use when etching parts too large for work plate. Tool is cool in operation as air circulates around it freely. Four heats of 120, 240, 420 and 700 watts provide for wide range of etching characteristics. Made by **Ideal Industries, Inc.**, 1032 Park Ave., Sycamore, Ill.

▲ Mention Item NED-3666 when writing ▲

PAPER · STAINLESS · BRASS
BRONZE · CAST IRON · ALUMINUM
STEEL · PLASTICS · MONEL · CERAMICS



.004" TO 5/16" PRECISION HOLES

IN *all* DRILLABLE MATERIALS

If your job is to drill small, precision holes in hostile material try the Hamilton Varimatic Drill. It's super-sensitive; and the speed is infinitely variable between 840 and 9300 R.P.M. Clearances and travel are ample for all work of medium size. 80% of present installations are repeat orders. The reason for this popularity is built into the machine. Our Bulletin V-47 "tells all". Write for it!

THE Hamilton TOOL COMPANY
SUPER SENSITIVE DRILLING MACHINES · TAPPING MACHINES · PORTELVATORS
901 HANOVER STREET • HAMILTON • OHIO • U • S • A

▲ Mention Item NED-3667 when writing ▲

Look at this *Versatile Clamp*

Here's a clamp that has both vertical and horizontal adjustments. The threaded spindle can be moved anywhere along full length of channel bar to give you a wide range of varied adjustments with the one mounting. Moreover, additional spindles can be placed on bar to accommodate varying thicknesses of parts held.

Remember, Knu-Vise clamps hold work with bull dog grip which can be released instantly.

This is Model V-400
The same type clamp is available with solid bar (without channel), Model VC-400. Recommended pressure of both is 400 lbs.

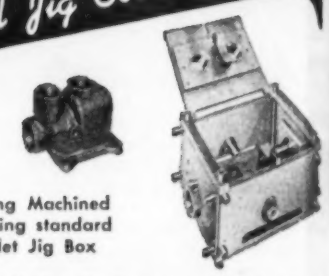
Send for new complete catalog

KNU-VISE PRODUCTS LAPEER MFG. CO.
3056 DAVISON ROAD • LAPEER, MICHIGAN

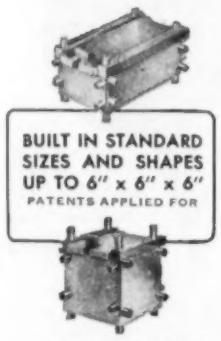
▲ Mention Item NED-3668 when writing ▲

NEW- *Drillet* JIG BOX
Cuts Drill Jig Costs 75%

DOES AWAY WITH SPECIAL TOOL DESIGN OF THE JIG BODY



Casting Machined by using standard Drillet Jig Box



BUILT IN STANDARD SIZES AND SHAPES UP TO 6" x 6" x 6"
PATENTS APPLIED FOR

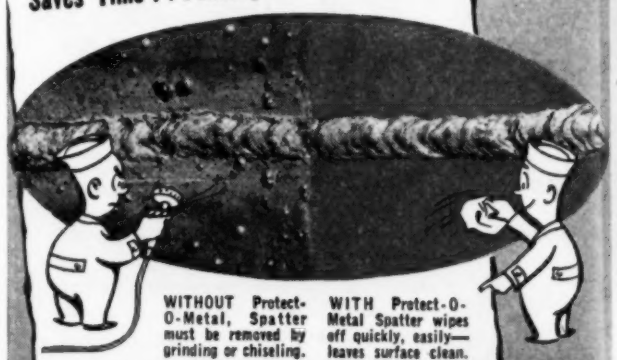
Full Scale Tracing Templates with Orders on Request

The Drillet Jig Box is a six sided leaf type jig for all phases of drill press operation. Tooling expense can be reduced as much as 75%. All that is necessary is for toolmaker to locate part and insert drill bushings. Eliminates preliminary steps required in building and squaring jig. Side plates, end plates and leaves are replaceable for immediate delivery. Before investing hundreds of dollars in your toolmaker's time — Write for Literature and Prices.

CHICAGO DRILLET CORPORATION
1755 N. WINCHESTER AVE., CHICAGO 22, ILLINOIS

▲ Mention Item NED-3669 when writing ▲

Protecto-Metal
Saves Time . . . Money . . . Labor for You



WITHOUT Protect-O-Metal, Spatter must be removed by grinding or chiseling.

WITH Protect-O-Metal Spatter wipes off quickly, easily—leaves surface clean.

NOW . . . You can cut welding clean-up time 90% by using inexpensive Protect-O-Metal. It's the NEW . . . BETTER way to make neater appearing welds. Does away with spatter. Leaves surface ready to paint. No grinding or chiseling with this patented compound used by leading fabricators everywhere. Unlike other compounds, POM has no smoke or odor. SIMPLE . . . QUICK . . . EASY to use. Just brush on and start to work. Protect-O-Metal improves the weld. Stabilizes arc and makes better fusion. So ECONOMICAL. Simply dilute one gallon with equal amount of water and get 3,000 feet of clean, quality welds. One-tenth of a cent per foot!

Write for "Spatter Facts," Bulletin No. 410

Try it — Use it — You'll agree! that Protect-O-Metal is the best there is. Satisfaction Guaranteed. Order a trial gallon today for only $3.15, F.O.B. shipping point.

G. W. SMITH & SONS 5406 Kemp Road Dayton 3, Ohio

▲ Mention Item NED-3670 when writing ▲

SAVE MONEY
WITH GUARANTEED MACHINE TOOLS

USED & RECONDITIONED EQUIPMENT

24" Bullard New Era Turret Lathe, Thread. Att.
36" & 42" Bullard "New Era" Turret Lathes
#2 Pfauter Gear Hobber, B.D.
#12 Barber-Colman Gear Hobber, M.D.
#45 G&NL Horizontal Boring Mill, M.D.
14" x 16" x 72" G&L Surface Grinder, late type
12" Fosdick Single Spindle Drill, late type
16" x 10" Reed-Prentice Lathe, late type
20" x 72" Ctrs. American Pacemaker, Prac. New
48" x 8' Ctrs. American Geared Head Lathe, M.D.
#2 Van Norman Plain Miller, late type
#2 & #5 Cincinnati Plain Millers
#5 Cincinnati Plain Miller (New)
24" Gemco Production Shaper (New)
20", 24" & 28" G&E Shapers, M.D.
#3 Warner & Swasey Turret Lathe, late type
#5 Gisholt Turret Lathe, late type
#5 Foster Univ. Turret Lathe, late type
#3L Gisholt Turret Lathe, late type
#3AL Gisholt Turret Lathe
30" x 30" x 10' Cincinnati Planer, 2 heads
36" x 36" x 18' American Planer, 2 heads
42" x 36" x 18' American Planer, 4 heads
10" x 24" Landis Type C Universal Grinder
10" x 48" Norton Plain Grinder, late type
14" x 36" Landis Type C Plain Grinder, late type
16" x 96" Landis Type C Universal Grinder, late type
1—G & L Model "A" Hydraulic Surface Grinder
1—120 A Gardner Disc, complete with motor
1—Model #5 Reed-Prentice Vert. Miller
1—#2 Cincinnati Vertical Mill
1—16" American Shaper
1—16 x 8 Reed Prentice Geared Head Lathe
1—10" Revett Bench Lathe
1—#118 Cincinnati Milling Machine, 1942
1—#2 Cincinnati Vertical Milling Machine, 1942
Tools of Various Sizes and Types

CINCINNATI MACHINERY CO., INC.
229 E. 2nd ST., CINCINNATI 2, O.

Mention Item NED-3671 when writing

FAIRFIELD

NO MATTER how special your requirements may be, Fairfield can help you solve your gear production problems efficiently . . . and economically. Fine manufacturing facilities, large production capacity, and some twenty-eight years of engineering experience have made Fairfield a leader in supplying gears for tractors, trucks, buses, machine tools, engines, and all kinds of automotive, aviation, agricultural, construction, marine, and industrial equipment. CHECK WITH FAIRFIELD ON YOUR NEXT GEAR REQUIREMENTS.

FAIRFIELD
MANUFACTURING CO.
317 South Earl Avenue
Lafayette, Indiana

For FINE GEARS

Mention Item NED-3672 when writing

Back Again
BY POPULAR REQUEST

SCULLY-JONES
EXTENSION SOCKETS
STYLE 100-W

Reduce the COST OF TOOLING

You can convert spindles to larger or smaller tapers—and extend the spindles in your present Drill Presses, Radial Drills, Turret Lathes, Boring Mills, etc.—to utilize their productive capacity to a greater extent.

LONGER WEAR AND BETTER PERFORMANCE

Made to exact specifications. The tang and hole ends are heat-treated for longer wear and maintenance of concentricity. They will outlast the ordinary soft sockets and perform with greater accuracy.

IMMEDIATE DELIVERY ON ALL POPULAR SIZES

FURNISHED WITH MORSE TAPER HOLES AND SHANKS
LONG • MEDIUM • SHORT

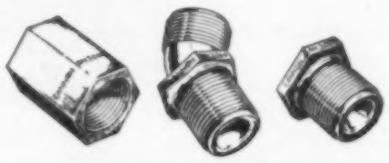
For details see page 215 Scully-Jones Manual 500

Scully-Jones AND COMPANY
1952 SOUTH ROCKWELL STREET, CHICAGO 8, ILLINOIS

Mention Item NED-3673 when writing

CONDUIT FITTINGS

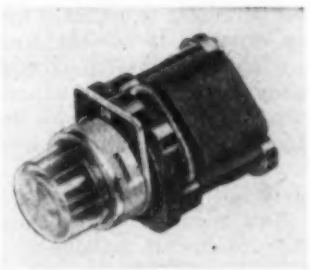
Added to line of connectors and accessory fittings, die-cast aluminum or bar stock conduit fittings have either tin plate or natural finish. Type AN3068 conduit coupling adapter shown on left is designed to make coupling between any two male threaded conduit fittings; type AN3060 45-degree coupling is for use in connecting either flexible or rigid aluminum, brass or other conduit; and type AN3064 box connector at right of illustration is designed for use with AN3066 coupling, not illustrated, to form termination inside conduit box or panel. Sizes range from 3/16 to 2-1/2 inches. Made by **Cannon Electric Development Co.**, 3209 Humboldt St., Los Angeles 31, Calif.



Mention Item NED-3674 when writing

OILTIGHT PILOT LIGHT

Available in types for use on alternating or direct current, this oiltight pilot light is designed specifically for machine tool applications and can be mounted on panels from 1/16 to 1/4-inch thick. Light for operation on alternating current has built-in transformer which permits use of 6-volt incandescent lamp with miniature bayonet type base. Direct current model employs 110-volt candelabra screw base neon lamp. Series resistors are used for voltages exceeding 110 volts. Color caps are available in clear, white, red, amber, green and blue colors, and they are designed for wide angle visibility. Made by **Square D. Co.**, Industrial Controller Div., 4041 N. Richards St., Milwaukee 12, Wis.



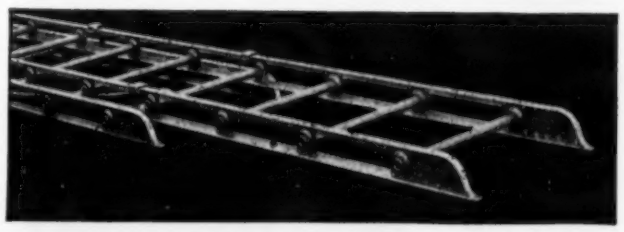
Mention Item NED-3675 when writing

CHRONOMETRIC TACHOMETER

Improved type A direct reading Tachoscope chronometric tachometer accurately indicates revolutions per minute and feet per minute in as little as 3 seconds. Timing is automatic and accuracy is within 0.5 per cent. Speed indicated remains on dial and can be read at operator's convenience. Instrument is unaffected by temperature or climatic changes and is immune to magnetism. Type A is 3-second indicator which has range of from 0 to 20,000 revolutions per minute and reads as close as 2 revolutions per minute. Type B is 6-second indicator which has range of from 0 to 2000 revolutions per minute. Made by **O. Zernickow Co.**, 15 Park Row, New York 7, N. Y.

Mention Item NED-3676 when writing

LIGHT DUTY
Aluminum EXTENSION LADDERS



This extension ladder was designed for use where an extremely light weight ladder of considerable strength is required.

Known as Type LDL, this ladder, with rounded ends, is made from two single wall ladders. The fly ladder is supplied with locks, pulleys and ropes as standard equipment. Rungs are corrugated for safety's sake, and are evenly spaced 14" apart. When desired, ladder may be separated so that each section becomes an independent single wall ladder.

If a heavy duty extension ladder is desired, specify Type 2EL or 3EL. Write for full details.

"Original Manufacturers of Aluminum Ladders"

SPECIFICATIONS FOR TYPE LDL

Model	Length of Ladders		Thickness	Weight
	Un-extended	Extended		
LDL 2 20'	10' 10"	17' 10"	6¾"	45 lbs.
LDL 3 24'	12' 0"	20' 2"	6¾"	48 lbs.
LDL 4 28'	14' 4"	24' 10"	6¾"	54 lbs.
LDL 5 32'	16' 8"	29' 6"	6¾"	60 lbs.
LDL 6 36'	17' 10"	31' 10"	6¾"	66 lbs.
LDL 7 38'	19' 0"	34' 2"	6¾"	70 lbs.
LDL 8 40'	20' 2"	36' 6"	6¾"	74 lbs.

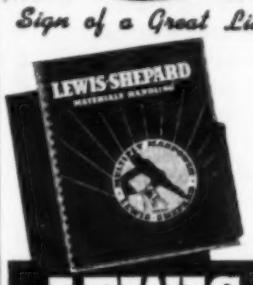
Aluminum Ladder Company
346 Carbis Street
Worthington, Pa.

Mention Item NED-3677 when writing

Get This 86 Page Catalog of
MATERIALS HANDLING EQUIPMENT

MULTIPLY MANPOWER • LEWIS-SHEPARD • TRADE MARK

Sign of a Great Line



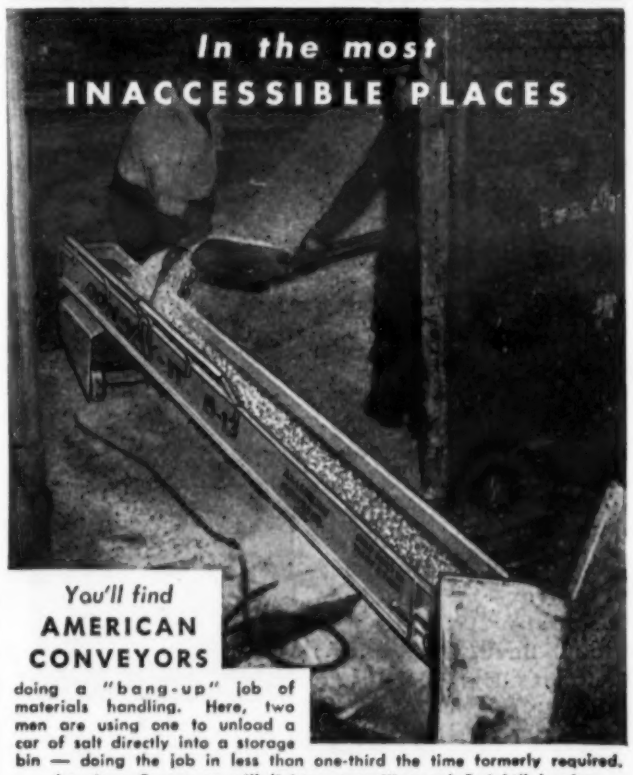
Let Us Help You Cut Your Mfg. Costs!

20-30% of the cost of manufactured products is handling materials. You can save thousands of dollars with Lewis-Shepard Electric and Gas Power Fork Trucks, "JackLift" Electric Trucks, "JackStacker" Tiering Trucks, Hydraulic and Mechanical HandLift Trucks, Skid Platforms, Hand and Electric Power Stackers, Storage Racks, Hand and Electric Power Cranes, General and Specific Purpose Hand Trucks. For latest Catalog

WRITE TODAY!

LEWIS-SHEPARD PRODUCTS INC.
302 WALNUT STREET WATERTOWN 72, MASS.
REPRESENTATIVES IN PRINCIPAL CITIES — CONSULT YOUR PHONE DIRECTORY

Mention Item NED-3678 when writing



You'll find **AMERICAN CONVEYORS** doing a "bang-up" job of materials handling. Here, two men are using one to unload a car of salt directly into a storage bin — doing the job in less than one-third the time formerly required.

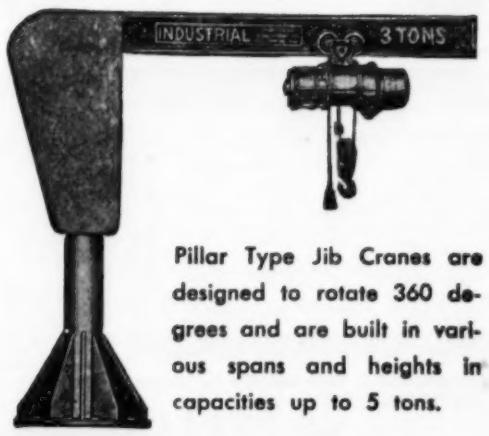
American Conveyors will lighten your "Internal Freight" burden — will save you time, effort, space . . . and MONEY.

Write TODAY for information. NED

AMERICAN CONVEYOR COMPANY
1112 W. Adams St. • Chicago 7, Ill.

Mention Item NED-3679 when writing

INCREASE YOUR PRODUCTION
INDUSTRIAL JIB CRANES
Faster, Safer Material Handling



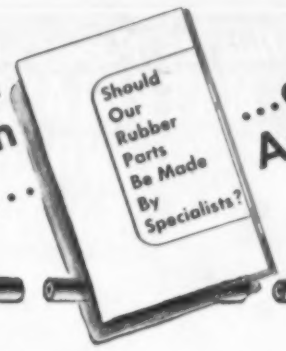
Pillar Type Jib Cranes are designed to rotate 360 degrees and are built in various spans and heights in capacities up to 5 tons.

INDUSTRIAL EQUIPMENT CO.
327 N. ADA ST. CHICAGO 7, ILL.

Specialists in
MATERIAL HANDLING EQUIPMENT
CRANES — MONORAIL — RUNWAYS — GANTRYS —
ELECTRIC HOISTS — CHAIN HOISTS — AIR HOISTS — TROLLEYS

Mention Item NED-3680 when writing

A Good Question to ask . . .



. . . and to Answer!

3 MINUTES reading time will give you a new conception of the assistance you can gain by consulting specialists in molded and extruded rubber products. Also included in this little booklet is a check list which will be invaluable to you in ordering the rubber parts you need.

Ask your secretary to send for the booklet now. Your copy will be sent promptly.

Rubber by CONTINENTAL RUBBER WORKS
1985 LIBERTY STREET
ERIE, PENNSYLVANIA

▲ Mention Item NED-3681 when writing ▲

HASTELLOY Alloy Resists HCl and Chloride Catalysts

You see here comparative views of two impellers used in a centrifugal pump for circulating hot reaction solutions in the production of aromatic hydrocarbons.

The impeller made of HASTELLOY alloy B has been in service three months; and it is expected to last at least three years because of its high resistance to hydrochloric acid and chloride catalysts. The other impeller, made of steel, failed after less than two months' use.

For further information, write for the booklet, "HASTELLOY High-Strength, Nickel-Base, Corrosion-Resistant Alloys."

HASTELLOY ALLOY B

STEEL

HAYNES STELLITE COMPANY
Unit of Union Carbide and Carbon Corporation
UCC
General Offices and Works, Kokomo, Indiana

"Hastelloy" is a registered trade-mark of Haynes Stellite Company.

▲ Mention Item NED-3682 when writing ▲

Severance CUTTING TOOLS HIGH SPEED CARBIDE

MIDGET MILLS - ¼" Shanks
GROUND-from-the-Solid

ACTUAL SIZE

TEN LEADERS
MORE THAN 20 SHAPES—EACH IN SEVERAL SIZES

Obtain the best from the originator of GROUND-from-the-Solid

DEBURRING GROUP

Severance JUNIOR MILLS-⅛" Shanks
GROUND-from-the-Solid

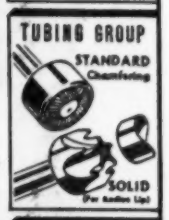
SET OF TEN

Practical for use on small grinders, for finishing Patterns, Dies, Parts, etc., in places difficult to reach with the larger Mills.

HIGH SPEED and CARBIDE

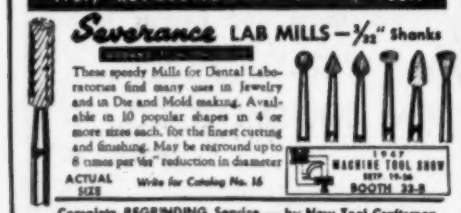
ACTUAL SIZE

TUBING GROUP



Truly REVOLUTIONARY Cutting Tools

Severance LAB MILLS—3/32" Shanks



These speedy Mills for Dental Laboratories find many uses in Jewelry and in Die and Mold making. Available in 10 popular shapes in 4 or more sizes each, for the finest cutting and finishing. May be reground up to 8 times per 1/64" reduction in diameter

ACTUAL SIZE

Write for Catalog No. 16

1947 MACHINE TOOL SHOW SEPT 19-26 BOOTH 32-B

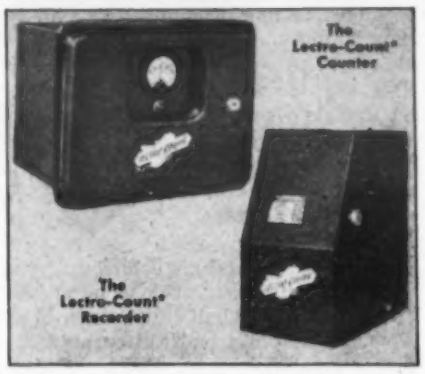
COUNTERSINK GROUP

Complete REGRINDING Service — by New Tool Craftsmen — Savings are thus multiplied —

SEVERANCE TOOL INDUSTRIES, Inc.
761 Iowa Ave. Saginaw, Michigan

▲ Mention Item NED-3683 when writing ▲

ELECTRONIC WORK COUNTER



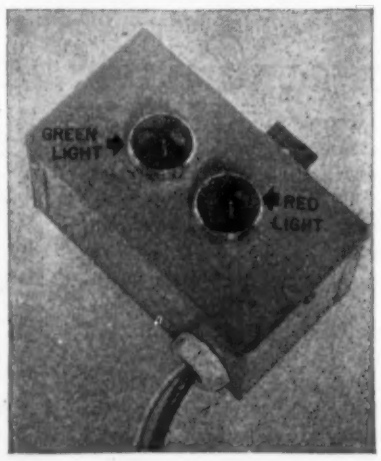
Connected to any motor driven production machine, improved Lectro-Count electronic work piece counter (*Item NED-4258, July '46*) determines and records cycles of operation as well as total number of parts completed. Permanent tape recorder used with instrument prints on standard adding machine tape the date, exact time and count for each piece produced. Information obtained aids in time study and accumulation of cost data and also provides permanent record of down time and production rate.

Instrument is actuated by fluctuation of current caused by variation in current demand of electric motor powering machine to which counter is attached. Adjustable delay circuits permit adjustment of instrument to delay count indication through any desired number of operations. This permits accurate count of pieces requiring multiple machine movements. Conversely, if one or more operations are omitted, count will not be obtained.

Unit requires no mechanical linkages, making it possible to install instrument at any remote location desired. In this way accurate information can be secured immediately in management or production control offices. Made by **Lansing Engineering Co.**, Electronics Div., 934-36 Clark St., Lansing, Mich.

▲ Mention Item NED-3684 when writing ▲

CURRENT LEAKAGE INDICATOR



Rapid and positive determination of leakage currents in direct current power distribution systems with grounded return is accomplished by means of this form A Bucher current leakage indicator. Unit warns of loss in insulation efficiency before total breakdown occurs and serves to prevent electrical fire and shock hazards.

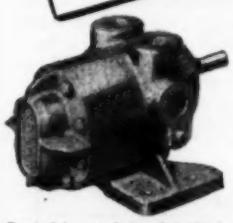
Other uses for unit are to indicate presence of undesired load on line and to warn of fallen wiring. Detector can be used also as shop or field tester for bore hole cables and for individual operating units such as cutting machines, loading machines, shuttle cars, drills and reel type gathering locomotives. Device is enclosed in sturdy metal case and requires minimum of maintenance. Made by **Mosebach Electric & Supply Co.**, 1162 Arlington Ave., Pittsburgh 3, Pa.

▲ Mention Item NED-3685 when writing ▲

The Multi-Purpose Pump

Serving Many Industries

The ideal pumps for clean liquids of all kinds. Supplied in standard fitted or bronze fitted models to suit specific needs. Recommended for pressures up to 300 p.s.i. when pumping lubricating oils and 100 p.s.i. on non-lubricating liquids. All sizes furnished with built-in relief valve if desired. Ropers are built compactly to fit a wide range of application and mounting conditions.



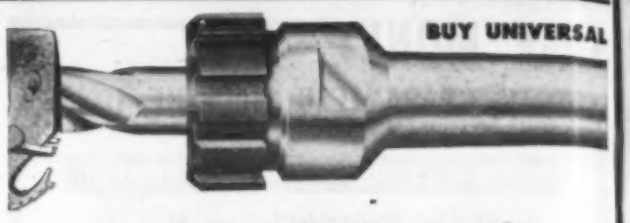
Foot Mounted Model With Mechanical Seal.

Flange Mounting Pump Head With Mechanical Seal.

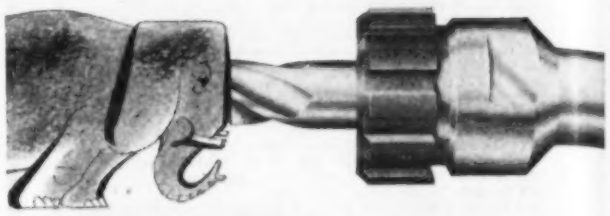
GEO. D. ROPER CORP.
665 BLACKHAWK PARK AVE.
ROCKFORD • ILLINOIS

ROPER Rotary Pumps

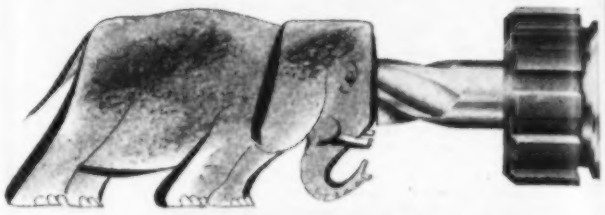
▲ Mention Item NED-3686 when writing ▲



6 TON THRUST CAN'T



BUDGE TOOLS GRIPPED IN

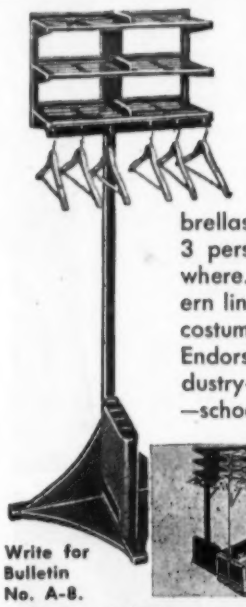


UNIVERSAL COLLET CHUCKS

UNIVERSAL ENGINEERING COMPANY
FRANKENMUTH 5, MICHIGAN

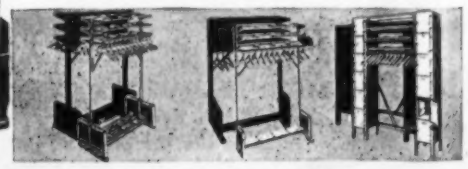
▲ Mention Item NED-3687 when writing ▲

The OFFICE VALET



END ALL "WRAPS" PROBLEMS

Office VALET Wardrobe Racks and Costumers end "wraps" problems, keep clothing "in press", aired on spaced hangers; provide ventilated spaces for hats, overshoes and umbrellas. Save floor space, accommodate 3 persons per square foot. Fit in anywhere. Lifetime welded construction. Modern lines and colors. 6-place non-tipping costumers—12 and 24-place 4-foot racks. Endorsed by top office planners—in industry—institutions—municipal buildings—schools—professional use.



Write for Bulletin No. A-8.

VOGEL-PETERSON CO.
"The Coat Rack People"
624 South Michigan Ave. Chicago 5, U. S. A.

▲ Mention Item NED-3688 when writing ▲

FOR 17 YEARS, 11 hours a day, these *Texrope* V-belt drives performed without breakage or replacement in the power plant of a midwestern manufacturer . . . just one of many examples of *Texrope* drive dependability. Whether you need a sheave to transmit 1400 hp or a belt for a ¼-hp compressor, *Texrope* drive offers you the best in V-belt engineering and equipment. For details, see our insert in Sweet's catalog, or call your nearby Allis-Chalmers office or dealer for Bulletin 20B6051G. A 2455

Texrope is an Allis-Chalmers Trademark

ALLIS-CHALMERS
MILWAUKEE 1, WISCONSIN

▲ Mention Item NED-3689 when writing ▲

THOMAS *Hardwood—Round Corner*

PLATFORM TRUCK

- Moulded-On Rubber Tired Wheels
- 2" Thick Frame
- Hyatt Bearings
- 10 Sizes

"Job-Suited" to Fit Your Needs

Thomas "Job-Suited" round corner truck. Ten sizes. Made with over 1000 different handles, boxes, shelves, etc. . . . one of them "Job-Suited" to your business. Thomas also makes many other types of 2- and 4-wheel trucks, casters and wheels. Let us give you a Thomas Catalog and quote prices.

Thomas Pry Trucks Move Big Loads Easy

Loads of freight too big or too heavy for regular 2-wheel trucks can be handled easily with Thomas Pry Trucks, particularly when used in pairs. Sharp steel nose slides under load, tremendous leverage enables user to easily raise load as high as 9" from floor. Used by freight handlers on RR, trucks, docks and in mfg. plants.

Thomas Truck and Caster Co.
4846 Mississippi River, Keokuk, Ia.

▲ Mention Item NED-3690 when writing ▲

Don't BURN Paper CONVERT IT!

AIRFLUFF PAPER SHREDDER MAKES EXCELSIOR OUT OF CONFIDENTIAL PAPERS, BLUEPRINTS OR ANY WASTE PAPER

Here's the machine that destroys paper yet saves it! The AIRFLUFF Paper Excelsior Shredder, easily shreds, separates and fluffs old newspapers, confidential papers, blueprints, magazines, waste paper, corrugated cartons, tissue, Cellophane and waxed paper. Low price, simple to install. Power and maintenance cost less than 2c per 100-pound bale. Absolutely safe—present employees can easily operate. Cuts in widths from ⅛" to ⅜". Model No. 14 shreds 600 to 1800 lbs. per hour. Model No. 10 shreds 200 to 800 lbs. per hour. Write today for prices and complete facts about these remarkably simple, sturdy and efficient new AIR-FLUFF Paper Shredders.

See our insert and listing in Thomas Register.

MITTS & MERRILL • SAGINAW, MICH.
1000 SOUTH WATER STREET
BUILDERS OF MACHINERY SINCE 1854

▲ Mention Item NED-3691 when writing ▲

ENGINE PRODUCTION SPEEDED WITH VACUUM

Some years ago this manufacturer of auto engines installed a Spencer 7½ HP Stationary Vacuum Cleaner to pick babbitt out of engine heads as they passed by on the production line. Much time was saved and they reclaimed half a ton of babbitt a day. Now the plant is provided with overhead Vacuum connections wherever needed all along the production line.

Spencer is also used for removing or conveying liquids, fumes, powders and hot materials. 356-G

150 USES FOR VACUUM...ASK FOR BULLETIN

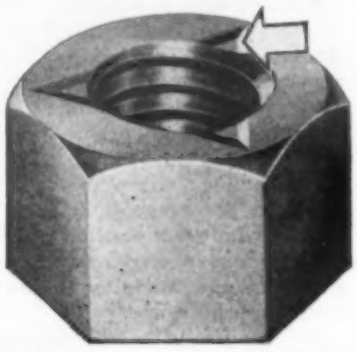
SPENCER VACUUM CLEANING
HARTFORD

THE SPENCER TURBINE COMPANY, HARTFORD 6, CONN.

▲ Mention Item NED-3692 when writing ▲

SELF-LOCKING NUT

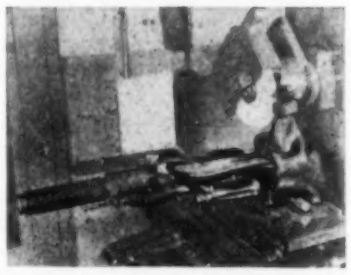
Improved, semifinished, one-piece, self-locking Gripco lock nuts require no lock washers or cotter pins, and locking action is unaffected by oil, water or chemicals. Principal improvement consists of widening and deepening original triangular deflections at top of nuts. This results in maximum flat-area depression of threads, makes it possible to remove and reapply nuts, and permits threads to be held to close tolerances. Nuts are available in standard dimensions. Made by **Grip Nut Co.**, 308-G S. Michigan Ave., Chicago 4, Ill.



▲ Mention Item NED-3693 when writing ▲

CONTOUR WHEEL DRESSER

Operating on 10:1 ratio from template which controls movements of diamonds by means of a stylus, this comparatively low cost contour wheel dresser has 10-inch diameter by 1⅛-inch wide wheel capacity. Complete set of five diamonds contains three 60-degree points with 0.002, 0.005 and 0.010-inch radii; one 72-degree point with 0.015-inch radius and one 90-degree roughing stone. Dresser can be moved from one machine to another to dress radii, angles and continuous contours across wheel. Made by **Hoglund Engineering Co.**, 697-1 Selfmaster Parkway, Union, N. J.



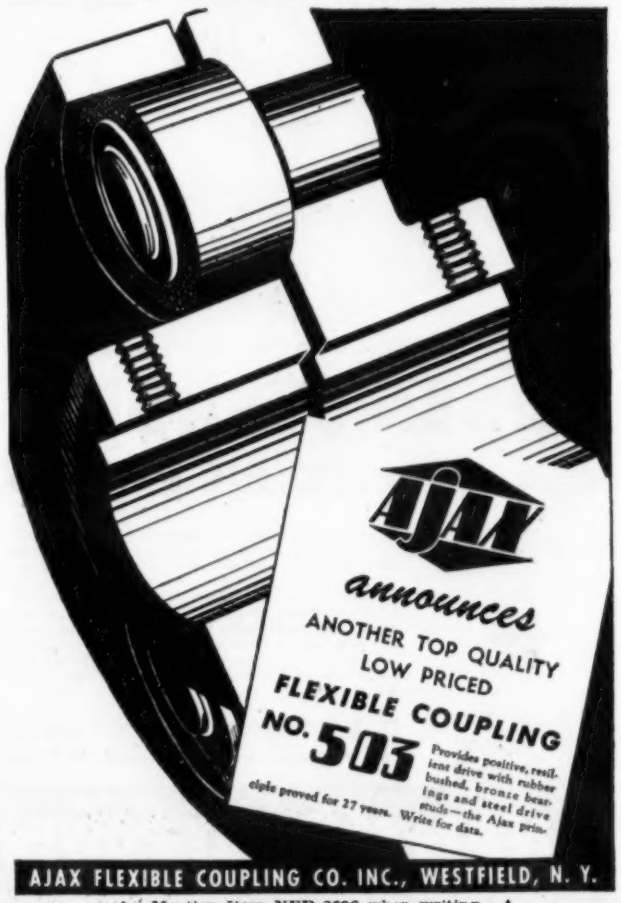
▲ Mention Item NED-3694 when writing ▲

ADJUSTABLE PARALLEL

Having wide range of applications in layout, gaging, spacing and checking work by toolmakers and mechanics, No. 915 adjustable parallels have set-screws for locking

at any desired width within range of 3/8 to 2-1/4 inches. They can be used for determining or checking width of slots and openings, as spacers for locating parts for accurate assembly and as gages. Employed in vise, they can be used for seating work at proper height or angle for milling machine, shaper and planer. Sliding section on dovetail slot is smooth, and set-screw provides firm lock. Thickness of all sizes is 9/32-inch. Parallels are available singly or as sets in leatherette case. Made by **Lufkin Rule Co.**, Hess St., Saginaw, Mich.

▲ Mention Item NED-3695 when writing ▲



AJAX FLEXIBLE COUPLING CO. INC., WESTFIELD, N. Y.

▲ Mention Item NED-3696 when writing ▲

NEW LIFTING EQUIPMENT
Uses Economical Oildraulic Power

Use Oildraulic power to lift loads directly from plant floor to trucks, freight cars or different building levels. Rotary Levelator Lifts speed plant traffic, conserve manpower and cut costs. Save plant space, too — no need for ramps. Installation simple, inexpensive.

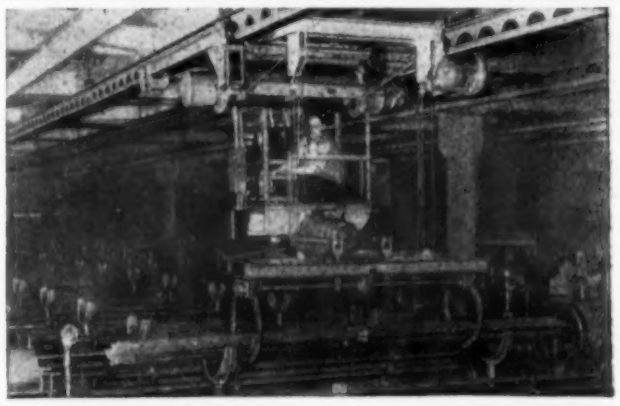
Write for Catalog RE-201

ROTARY LIFT CO., 1117 Kansas, Memphis 2, Tenn.

Rotary® LEVELATOR® LIFTS

*Reg. U. S. Pat. Ofc.

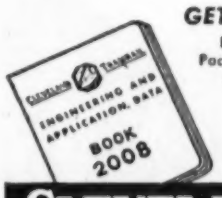
▲ Mention Item NED-3697 when writing ▲



PICK UP — TRANSPORT — DELIVER
ALL OPERATIONS BY CAB OPERATOR

Pipe, rod, bars, etc., are picked up, transported and delivered with this motor-driven carrier and grab. The operator controls all motions from the cab without need of floor assistants. The carrier travels on two overhead rails. Material delivery is speeded. Floor space saved. Handling costs cut.

GET THIS BOOK!
BOOK No. 2008
Packed with valuable information..



CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
4430 E. 285th St., Wickliffe, O.

CLEVELAND TRAMRAIL

▲ Mention Item NED-3698 when writing ▲

Better Tubes...
Longer Life...
Increased Production through

DPI HIGH-VACUUM ENGINEERING

• Your present rotary exhaust machines can be completely automatic in operation, yielding increased production for any size tube.

Converted to DPI vacuum equipment, your machines will have a *fractionating* oil diffusion pump and a small mechanical pump *under each separate port*. Tubes are rough pumped through automatic solenoid valves.

Protective devices with automatic controls seal off the pumps and isolate trouble in case of faulty tubes. Seal-off pressure will reach 5 x 10^{-6} mm of mercury *before* getter is flashed.

DPI-engineered rotary exhaust machines produce *cleaner* tubes *faster*, by continuous pumping throughout the cycle—eliminate large backing pumps and rotary slide valve.

For full information, write—

Vacuum Equipment Division
DISTILLATION PRODUCTS, INC.
763 RIDGE ROAD WEST • ROCHESTER 13, N.Y.

570 Lexington Ave.
New York 22, N. Y.

135 So. La Salle St.
Chicago 3, Illinois

Manufacturers of Molecular Stills and High-Vacuum Equipment; Distillers of Oil-Soluble Vitamins and Other Concentrates for Science and Industry

▲ Mention Item NED-3699 when writing ▲

FUSE ALUMINUM
Without Solder!

Light gauge Aluminum can be successfully fused at soldering iron temperature using ASMC Flux.
ASMC Flux when used with FARRELLOY Solder permits soldering of ALL metals making strong bonds which can be readily machined, plated and prove substantially resistant to corrosion over a longer period compared to ordinary solders.
It will pay to test these production boosters in your shop now!

ASMC Flux only—$3.50 per lb.
FARRELLOY Solder—$2.00 per lb. } F. O. B. Phila., Pa.

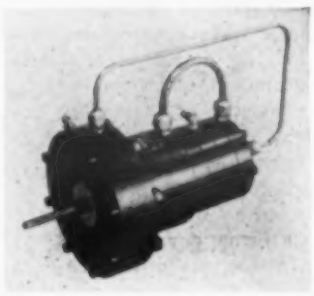
HANDY ACID and DOPE BRUSHES

Here's a useful tool for busy plants doing soldering. These brushes are made to meet highest standards, fitted with tinned handles to resist acids. Stiff bristles keep their shape under constant use. Available in three sizes—3/8", 1/2" and 5/8" width bristles. Price per gross, $3.00, $4.00 and $5.00 respectively. F.O.B. Philadelphia, Pa.

FARRELLOY COMPANY
1246 N. 26th STREET PHILADELPHIA 21, PA.
Consult us if you need U. S. Specification Fluxes.

Mention Item NED-3700 when writing

PNEUMATIC POSITIONING UNIT



Precise positioning of oil burner tips, injection nozzles, pump governor gears and similar devices is accomplished with this Micropositioner which actuates in accordance with received pneumatic pressures. Considerable power is exerted by unit. For example, employing 60-pound per square inch pressure, unit will position lever within a few thousandths of an inch over range of 0 to 0.5-inch without using mechanical linkage. Made by **Hagan Corp.**, 1945 Hagan Bldg., Pittsburgh 30, Pa.

Mention Item NED-3703 when writing

THERMOCOUPLE

Applications for this nickel-nickel molybdenum thermocouple include measuring temperatures in protective atmospheres in heat treating of steel and malleable iron and in copper brazing. Unit will stay on calibration in reducing atmospheres at temperatures as high as 2100 F. Thermocouple element, supported by ceramic insulators, is sheathed in alloy protective tube which is welded at hot end to make it airtight. To assure rapid response, it makes physical contact with end of the tube.

Gastight adapter is welded to alloy tube at terminal end. Adapter screws onto 1-inch pipe which is welded to steel furnace casings to make gastight connection with furnace. Addition of terminal connector with die-cast housing completes thermocouple assembly. Made by **General Electric Co.**, Schenectady 5, N. Y.

Mention Item NED-3704 when writing

FLOOR CLEANING MACHINES

Both single and twin-brush models of Corbin floor cleaning machines of revolving brush type are designed for wet and dry scrubbing, waxing, rug shampooing, floor polishing, grinding, sanding and troweling. Cleaning solution can be spray fed onto top of brush from large solution tank which is easily mounted on handle shaft. Adjustable handle can be secured at any angle, and safety electric switch on handle has dual control levers extending under each insulated handle grip.

Double rubber bumpers around base of machine prevent marring of furniture and walls. Conventional wood-backed brushes and other accessories are snapped into place and removed without use of tools. Equipped with 50 feet of oil-resistant rubber-covered cable, machines can be plugged into any standard electrical outlet. Model C machine has 16-inch brush spread, model D has 19-inch brush spread and model E has twin brushes with overall spread of 21 inches. Single-brush models have reversing switch which permits selection of direction of brush rotation. Made by **American Hardware Corp.**, Corbin Screw Div., New Britain, Conn.

Mention Item NED-3705 when writing

Vibration
SPECIALISTS

Standard Locknuts, Lockwashers and Adapters are *vibration-proof* devices for holding ball or roller bearings in place. Hard wear and tear cannot shake them loose, they are easily removed, and can be used again and again. Locknuts can be locked in a permanent and correct position by multi-prong Lockwashers.

Locknuts in sizes N-00 through AN-40 . . . Lockwashers (multi-prong type) in sizes W-00 through W-40. Write for Bulletin 27.

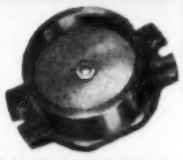
Adapter sizes 7-9-11-13, for shaft sizes 1 3/16" - 1 7/16" - 1 15/16" - 2 3/16".

Standard
LOCKNUT & LOCKWASHER, INC.
311 N. CAPITOL AVE., INDIANAPOLIS 4, INDIANA

Mention Item NED-3707 when writing

"There's an easier way to get Overheat Protection"

USE BUILT-IN
KLIXON PROTECTORS



TO PREVENT BURNOUTS OF MOTORS, TRANSFORMERS, SOLENOIDS, VARIABLE VOLTAGE TRANSFORMERS

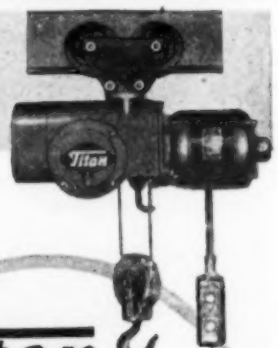
You don't need artificial cooling methods to keep motors, solenoids, transformers or variable voltage transformers from overheating and burning out. All you need do is to specify that your equipment manufacturer supplies you with equipment that has built-in Klixon Protectors.

Klixon Protectors prevent overheating and burning out of equipment. Built-in by the manufacturer, they are matched to the thermal characteristics of the particular equipment. You get a tested and proven combination of a correctly rated protector for the device.

KLIXON
SPENCER THERMOSTAT COMPANY, 1905 Forest Street, Attleboro, Mass.

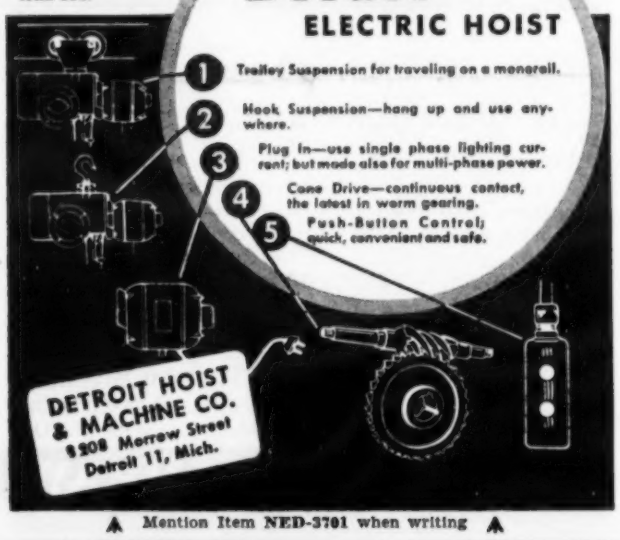
Mention Item NED-3708 when writing

The SMALL hoist with the BIG hoist features



The Titan is a compact, lightweight, electric hoist; easily installed, simple to operate. It is inexpensive to buy, costs practically nothing to operate, handles loads up to 750 pounds; is fast and makes handling safer for both men and materials

Ask For further information on this time saver and production increaser; also for Titan Bulletin 801.



Mention Item NED-3701 when writing

ROLOCK
PROCESSING CARRIERS

Rolock engineers have been unusually successful in custom-designing . . . from simple hand baskets to large alloy rotating pickling barrels . . . for economy in production.

This coolant draining basket, for example, is just a standard dipping basket with legs. Simple, but effective in time saving. Fitting inside standard pail, it catches finished parts from a screw machine, permits cutting oil to drain from parts as they fill the pail. No mess, no lost time.

Rolock Carriers speed metal parts handling, cut rejects, lower costs.

SEND FOR CATALOG . . . 225 EXAMPLES

ROLOCK, INC. 1410 Kings Highway, Fairfield, Conn.
22RL48

CUSTOM-BUILT . . . FOR BETTER WORK AND LOWER COST

Mention Item NED-3702 when writing

Guard Against Costly Power Failures with
ONAN STANDBY
ELECTRIC PLANTS

When power fails, business comes to a standstill. Materials in process are wasted, men and machines stand idle, lives may be endangered. Prevent the disastrous effects of power failure with a low-cost, easy-to-install Onan Standby System. The generating plant starts automatically when commercial power fails, takes over the power load without interruption, stops automatically when power is restored. Many models: 350 to 35,000 watts, A.C.

Onan PRODUCTS
D. W. ONAN & SONS INC.
3680 Royalston Ave., Minneapolis 5, Minn.

ONAN STANDBY POWER

Mention Item NED-3706 when writing

Bulletin 712-13
A-C Combination Starting Switches

A-B Quality

• Available with fuses or circuit breaker

Allen-Bradley combination starters are popular with machinery manufacturers because (1) they save space, (2) they're easy to install, (3) they provide added safety features, and (4) they're more attractive in appearance than separate disconnect switch and motor starter. Available in seven types of enclosures.
Allen-Bradley Co., 1334 S. 2nd St., Milwaukee 4, Wis.

ALLEN-BRADLEY
QUALITY
MOTOR CONTROL

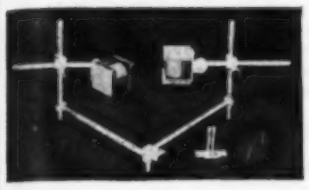
Mention Item NED-3709 when writing

LOOK... NO HANDS!

THE *Minute Man* ® MAGNETIC BASE

provides instant, steady dial indicator gage application at the most convenient, effective position on lathes, millers, grinders, shapers, planers, etc. No clamps, fixtures or special attachments. Always ready for work — magnetic power doesn't diminish or disappear.

Write for Free bulletin "D" today.



The du MONT CORPORATION
GREENFIELD, MASSACHUSETTS

The Minute Man MAGNETIC WELDING POSITIONER holds two or more pieces of ferrous metal in any position ready for welding, soldering or other joining operations.

"Makers of famous 'Minute Man' Keyway Broaches and other 'Minute Man' time- and money-saving products."

Mention Item NED-3800 when writing

YOU CAN CUT COSTS THREE WAYS WITH

DISSTON HACK SAW BLADES

You save in cutting time. You save in down time. You get more cutting from each blade. All add up to increased production . . . lower production costs.

DISSTON HIGH SPEED STEEL BLADES saw through metals ordinary blades cannot cut. Use them for stainless steel, chrome-nickel steels and similar alloys.

DISSTON DI-MOL BLADES withstand severe strains and abuse. Use them for cutting tool and machine steels, cast iron, tubing and general machine shop production.

ESTABLISHED 1840 — REG. U.S. PAT. OFF.

Order from your Disston Distributor, or write direct for booklet, "Disston Hand and Machine Hack Saw Blades."

Each supplied in all standard lengths, widths, thicknesses and teeth per inch . . . for all machines. Also in sizes for hand use.

Get better hack saw service at a saving: Use Disston Hack Saw Blades.

•

For other metal-cutting tools of extra quality, ask for DISSTON FILES . . . CIRCULAR SAWS . . . CARBOLOY-FITTED CIRCULAR SAWS . . . TOOL BITS.

HENRY DISSTON & SONS, INC., 529 Tacony, Philadelphia 35, Pa., U.S.A.
Canadian Factory: 2-20 Fraser Ave., Toronto 1, Ont.

Mention Item NED-3801 when writing

A MORE EFFICIENT SYSTEM FOR MATERIALS HANDLING

DEMPSTER DUMPSTER

Regardless of the type of materials you handle, the Dempster-Dumpster System of one truck, equipped with a Dempster-Dumpster hoisting unit, handling an unlimited number of bodies does the job quicker, easier and with great savings in gas, oil, manpower and investment. Standard or special bodies in capacities from 1½ to 10 cu. yds. are placed at loading points, picked up when loaded, hauled and dumped with the entire operation handled by one man from hydraulic controls in cab. No wasted time for truck or driver. Pictured installation shows steps in handling tank body built for handling liquids. The comparatively low cost of installing this system will surprise you. Write for catalog 245 now.

DEMPSTER BROTHERS, Inc.
597 Shea St., Knoxville 17, Tenn.

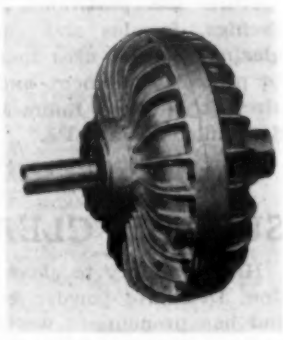
Mention Item NED-3802 when writing

HYDRAULIC ELEVATING UNIT

Supplied without top to permit installation of specialized top as required, adjustable hydraulic elevating pedestal is capable of handling loads up to 2000 pounds. Platform elevates from 28 to 44 inches and can be locked in one position or it can be revolved freely. Stability is assured by 30-inch square base equipped with two 5-inch swivel and two 5-inch rigid casters. Floor lock holds table firmly in position. Elevation is provided by hydraulic cylinder and single-speed hydraulic foot-pump with pedal release. Special tools and fixtures can be mounted on 8 x 10-inch bracket supplied for purpose. Made by **LYON-Raymond Corp.**, 4864 Madison St., Greene, N. Y.

Mention Item NED-3803 when writing

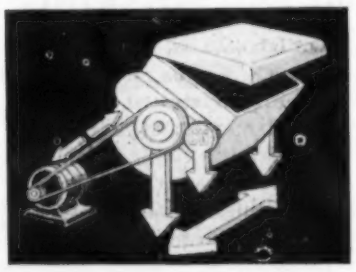
HYDRAULIC DRIVE COUPLING



Because it makes possible virtually no-load starting, self-drive coupling permits utilization of minimum size of electric motor. Coupling gradually accelerates driven machine to prescribed speed. Overload relay protection can be provided additionally. Two couplings, one rated 5 horsepower and the other 7½ horsepower, feature low inertia, quick stop, reversing duty, circumferential oil seal, large fin area and fan blades, and ball bearing mounted impeller and runner nut. Shaft end ball bearings in couplings assure permanent shaft alignment, prevent play and eliminate oil leakage. Housings are precision molded aluminum alloy castings. Couplings are 8½ inches and 9½ inches in diameter respectively. Made by **CraneVeyor Corp.**, 1240 S. Boyle Ave., Los Angeles 23, Calif.

Mention Item NED-3804 when writing

MACHINERY DESIGN MOVIE



Based on experience of machinery manufacturers in utilizing welded steel fabrications, 16 - millimeter sound color motion picture "Designing Machinery for Arc Welding" gives examples of four fundamental elements of machinery: bases, wheels, containers and covers. Film presents functional approach to design; compares various materials and presents study of load factors, stresses, rigidity, performance and appearance. Picture is available for showing, at no charge except transportation, before interested industrial organizations, technical societies and others. Available from **Lincoln Electric Co.**, Dept. AP-574, Cleveland 1, O.

Mention Item NED-3805 when writing

FAST FINISH BAKING

Refinished Relay Covers and other Control Parts Formerly Air Dried in 8 Hours—Now a Better Wrinkle Finish is Baked in ONE Hour with the

Despatch R-S FINISH BAKING OVEN

● Minneapolis-Honeywell Regulator Co. uses the above Despatch R S Oven for refinishing of controls sent in for repair. The black wrinkle enamel on the relay cover shown is baked to an extremely hard, durable finish in 1 hour at 300° F. saving 7 hours of former air drying time! Other parts are baked ½ hour at 350° F., This fast baking of finishes speeds up the entire repair program, improves service to customers.

Despatch R S Ovens are well insulated, very economical, 100% controlled for uniform heat up to 500° F., with temperature variation seldom more than 3° F. Built in a range of sizes for a great variety of applications. Tell us your needs—

Write for Bulletin on R S Ovens.

DESPATCH OVEN CO. Established in 1902

Manufacturers of ovens for:
Paint Finishing, Dehydrating, Curing, All Industrial and Laboratory Applications

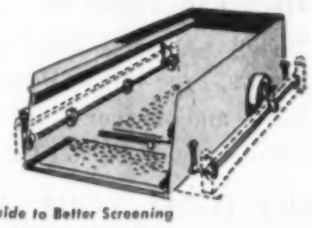
325 DESPATCH BLDG., 8th Street at 7th Ave. S. E., MINNEAPOLIS 14, MINNESOTA

Mention Item NED-3806 when writing

rough riding days are over

When you switch to a
SMOOTH SECO VIBRATING SCREEN

Bobbing, weaving and other forms of "rough riding" can't happen with Seco on the job. Why? Seco's patented Equalizer Assembly (shown in outline) gives fully controlled true circular action—under all load conditions. Thousands in use.



Write Dept. P for A Guide to Better Screening

TRUE CIRCULAR MOTION VIBRATING SCREENS

SECO

SCREEN EQUIPMENT COMPANY, INC.
PRODUCERS OF VIBRATING SCREENS EXCLUSIVELY
Buffalo 21, New York
In Canada: United Steel Corp., Ltd., Toronto

Mention Item NED-3807 when writing

THE MAINTENANCE OF INDUSTRIAL LAWNS IS IMPORTANT!!!
IMMEDIATE DELIVERY

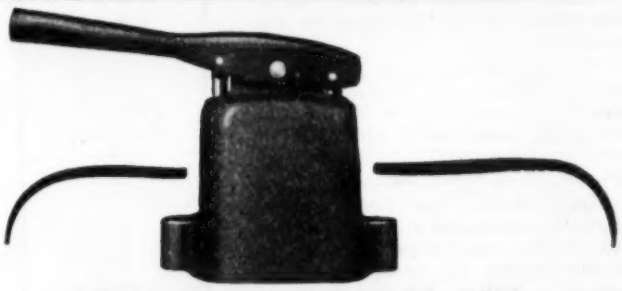
THE *Scimitar* SELF-POWERED LAWN MOWER

SEND FOR ILLUSTRATED FOLDER NOW!

An industrial plant or any enterprise surrounded by an acre or more of lawn merits consideration for beauty. The Scimitar was expressly constructed for fast, economical and trouble free operation. The wheels also are self-powered. Your maintenance crews can cut one acre per hour.

POWER DEVELOPMENT CORP.
6719 DENISON AVENUE • CLEVELAND 2, OHIO

Mention Item NED-3808 when writing



Quick-As-Wink
HAND OPERATED
Control Valves

For single and double acting air cylinders

● Widely used on machines and machinery of all kinds. Operating parts are in pressure balance eliminating any tendency to creep or crawl. The U-shaped packers are expanded by pressure and seal tightly avoiding leakage. There is no lapping—no grinding—no metal-to-metal seating. Built with stainless steel bodies and bronze sleeves. Sizes up to 1½ inch. 2, 3 and 4 way, regular and three position designs providing neutral and compound exhaust. For air up to 125 lbs. pressure and 150°F.

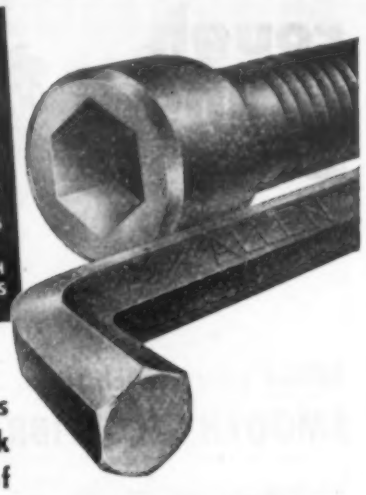
Send for a catalog today—and get full details about the complete line.

Manufactured by C. B. HUNT & SON, INC., *Salem, Ohio*

ENGINEERING AND SALES REPRESENTATIVES IN THE PRINCIPAL CITIES

Mention Item NED-3809 when writing

WARNING
Allen-type screws aren't necessarily Allen-MADE . . . .
Be sure to get genuine Allens
SOLD ONLY THROUGH LEADING DISTRIBUTORS



Allen-Made Products Include Over 1500 Stock Sizes and Types of
Socket Cap and Set Screws, Square Head Set Screws, Pipe Plugs, Dowel Pins, Shoulder Screws, Keys and Drivers, the New Allen-Nut*, and Stainless Steel Socket Cap and Set Screws.

BUY FROM YOUR ALLEN DISTRIBUTOR

ASK US for descriptive folders or engineering assistance in product design.

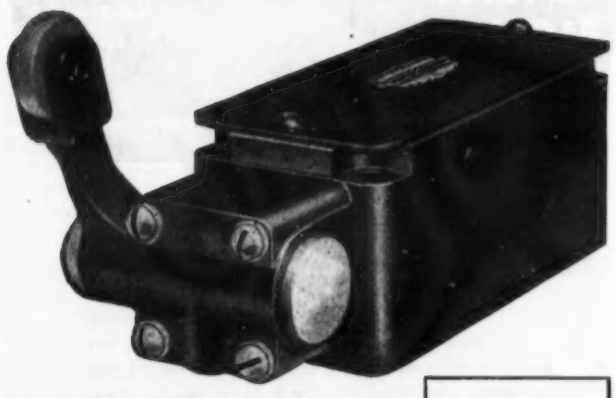
ALLEN MANUFACTURING CO. ALLEN HEAD
Hartford 2, Connecticut, U.S.A.
NEW YORK, CLEVELAND, DETROIT, CHICAGO, LOS ANGELES

*Patent Applied For

▲ Mention Item NED-3810 when writing ▲

STOP!

This Snap Action Limit Switch has Many Features, Many Uses

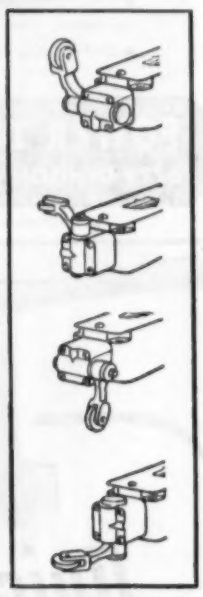


The Cutler-Hammer Bulletin 10316 Limit Switch, available in roller lever, push roller or push rod operating heads, all of which are interchangeable, meets many different needs on machines, machine tools, cranes and hoists. The roller lever type is furnished either with trip in both directions or with trip in one direction and by-pass in the other direction.

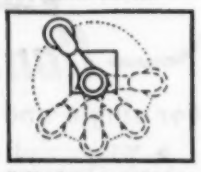
The operating head mounts in any of 4 quadrants. The roller lever can be set positively in 90 different operating positions (4° apart). Thus any machine mounting or field requirement is easily met.

Each switch has two circuits: normally open and normally closed. Adjustable contacts provide various arrangements of overlap, or no overlap. Switch can be used to initiate automatic cycles, to reverse motor or as a stop on overtravel.

Construction is exceptionally sturdy with large bearings and hardened surfaces. Twin break silver to silver contacts, quick make and break, unvarying tripping points. Maximum ease of wiring, adjustment and accessibility. Standard, dustproof, dust tight, water tight or oil tight enclosing case. Complete details on request. . . CUTLER-HAMMER, Inc., 1377 St. Paul Ave., Milwaukee 1, Wisconsin.



Operating head mounts in any of 4 positions, top, bottom, right or left shown above.



Roller lever may be set in any of 90 different positions, 4° apart as shown above.

Push roller or push rod operating head also available.

CUTLER-HAMMER MOTOR CONTROL C-H

▲ Mention Item NED-3811 when writing ▲

NEW *Processes* AND *Materials*

LARGE PLASTICS SHEETS

Acrylic plastics sheets are now available in sizes up to 100 x 120 inches and in thicknesses from ¼ to ½-inch. Development of large sizes greatly widens use of plastics sheets which were formerly available in maximum size of 67 x 79 inches. Applications include use in automotive field, merchandising field for large showcases, and in architecture for partitions, wall facings, facades and curved glazing. Special uses include radar station installations to protect equipment and as transparent enclosures on aircraft. Made by **Rohm & Haas Co.**, 222 W. Washington Sq., Philadelphia 5, Pa.

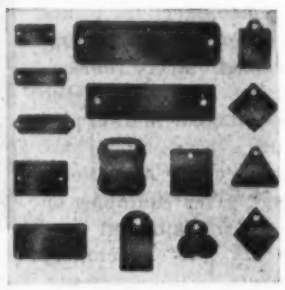
▲ Mention Item NED-3812 when writing ▲

SURFACE CLEANING MATERIAL

Having ability to clean and deodorize in single operation, Di-Sanite powder is soluble in hot or cold water and has pronounced wetting, penetrating and detergent ability. Material is slightly alkaline and safe to use, is free from abrasive and harmful ingredients, and can be applied to surfaces by sponging, wiping or mopping. It deodorizes objectionable odors at their source in factories, metalworking plants, textile and paper mills, food processing plants and institutions and can be used for deodorizing toilets, shower stalls, wash and locker rooms and interiors of public conveyances. Made by **Oakite Products, Inc.**, 32G Thames St., New York 6, N. Y.

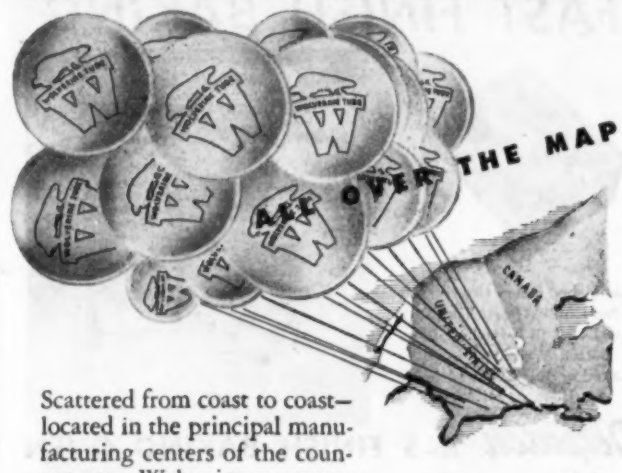
▲ Mention Item NED-3813 when writing ▲

METAL MARKING TAGS



Available in wide range of sizes and designs, a few of which are illustrated, line of standard metal marking tags provides 'large run' economies on limited quantities. These tags are suitable for inventory and material control as well as product identification. Made of brass, copper, aluminum, zinc, tin plate, zinc-coated steel or steel, they are weather-resistant, fireproof and wear-resistant. Affixed by means of drive screws, escutcheon pins, stapling or tying, they can be supplied with plain surfaces, any required lettering, or consecutive numbering; or they can be embossed or stamped to specification. Made by **Metal Marker & Mfg. Co.**, 1384 E. 40th St., Cleveland, O.

▲ Mention Item NED-3814 when writing ▲



Scattered from coast to coast—located in the principal manufacturing centers of the country—are Wolverine representatives—not mere somebodies sporting Wolverine identities—but individuals thoroughly familiar with the tube industry, ready to work with you on any problems concerning tubing or its applications.

And backing each of these men—here at the Detroit Mill—is a supporting organization of trained engineers whose extensive experience can be drawn on to augment your own facilities.

Consult the listings in your telephone directory for the representative in your city.

WOLVERINE TUBE DIVISION
CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
6455 CENTRAL AVENUE • DETROIT 9, MICHIGAN

▲ Mention Item NED-3815 when writing ▲

Air Power makes power presses out of kick presses

NP

Pre-engineered KICK PRESS KIT
- increases production
- reduces rejects
- improves quality
- easily installed

Increases production by substituting light pressure on a foot control valve for the fatiguing "kick". Quality is improved and rejects virtually eliminated because every stroke of press is delivered at uniform power. Kit furnished complete with easy installation instructions. Write for bulletin DC-26.

NATIONAL PNEUMATIC COMPANY
INDUSTRIAL SALES DIV., RAHWAY, N. J.
Pneumatic Specialists Since 1904

▲ Mention Item NED-3816 when writing ▲

There's an Easier Way to Solve LEAD HAMMER BOTTLENECKS!

DO IT WITH THE NEW COOK 3 IN 1 LEAD HAMMER MOLD!

It's a *production* hammer mold . . . makes *three* lead hammers as fast as ordinary molds make one!

It's expressly designed to mold hammer heads in 3, 4, 5 or 6 lb. sizes around COOK SHUR-GRIP HAMMER HANDLES . . . the drop forged handles that mean certain *safety*!

It's easy to use! Close lid . . . pour lead directly from lead pot or ladle and *THREE* hammers are molded!

Try it . . . The COOK 3-in-1 Production Lead Hammer Mold!

Address Dept. 8 for complete lead hammer service literature and price list!

LAWRENCE H. COOK, INC.
Successors To The Johnson Tool Co.
PLASTIC MOLDS AND TOOLS
65 MASSASOIT AVE., EAST PROVIDENCE 14, R. I.

▲ Mention Item NED-3817 when writing ▲

it's Weston

MODEL 221-D 3" head dia.

MODEL 222-D heavy duty—angle form

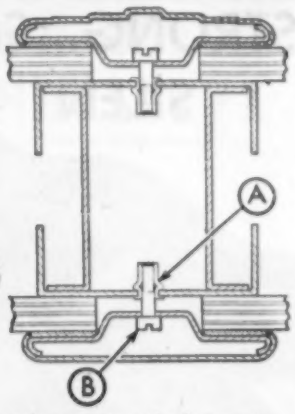
MODEL 122-D heavy duty—straight form

IN TEMPERATURE MEASUREMENT, TOO!

In temperature measurement, too, WESTON leads the way! The sturdy, all-metal construction of these WESTON thermometers, plus their simplicity of design, materially reduces thermometer breakage and maintenance, and safeguards their high initial accuracy over long periods of time. Available in sizes, types and stem lengths for most applications. Weston Electrical Instrument Corp., 663 Frelinghuysen Ave., Newark 5, N. J.

▲ Mention Item NED-3818 when writing ▲

RIVNUTS solve tough problem in NEW BUILDING DESIGN



ARCHITECTS for pre-fabricated restaurants had a tough design problem. Porcelain steel walls had to be fastened to studding securely, yet be easily removable. B. F. Goodrich Rivnuts provided the ideal solution.

Rivnut "A" is inserted and upset from *one side* of the studding. Its flat head and the firm bulge formed in its shank provide a tight grip. The threads furnish a clean, deep nut plate for attaching walls with cap screw "B".

Because walls can be removed quickly and easily for moving or repair, Rivnuts mean real savings. If *you* have a fastening problem, why not consult a Rivnut engineer? Write the B. F. Goodrich Company, Dept. NED-58, Akron, O.

READ ABOUT OTHER APPLICATIONS IN RIVNUT DATA BOOK

Latest edition, 40 pages, fully illustrated. Tells where and how to use Rivnuts. Gives types, sizes, load capacities. For your free copy, write to

B.F.Goodrich DEPT. NED-58, AKRON, OHIO

Mention Item NED-3819 when writing

THE BALANCED DRIVE HANSEN TACKERS

IT'S no trick with Hansen one-hand Tackers with their Balanced Design—to get faster action in shipping, assembly or production. Balanced Drive makes a big difference!

Simple design, easy operation, short travel of handle and shorter hammer stroke—speed up tacking and fastening jobs—save time, effort, materials.

Tacker operates with one hand. Holds up to 140 staples per loading. Self-contained. Ready for instant, continual operation. Thirty six models of Tackers and Staplers. Staples in eighty widths and lengths!

ASK FOR FOLDER

A. L. HANSEN MFG. CO.
5164 RAVENSWOOD AVE. CHICAGO 40 ILL.

Mention Item NED-3820 when writing

Looking For Money-Saving Slants On Finishing?

See how *rubber-and-abrasive* Brightboy—

- Can Combine Burring, Finishing, Smoothing, Polishing *in one operation!*
- Gives Wide Variety of Surface Effects
- Does Precision Close Tolerance Work.

Write the Brightboy Service Department on specific production problems.

Get the Brightboy catalog-manual, with work saving suggestions and Brightboy prices from your dealer.

BRIGHTBOY INDUSTRIAL DIVISION
Weldon Roberts Rubber Co. Newark 7, N. J.

WELDON ROBERTS Brightboy — BURRING · FINISHING · POLISHING IN ONE OPERATION

The Soft Rubber BINDER . . . . . CUSHIONS the Abrasive

Mention Item NED-3821 when writing

New Processes & Materials

ALUMINUM ROOFING

Furnished in 36-inch width and 60-foot long rolls, 0.004-inch thick embossed aluminum roofing has been designed for use on built-up roofs. This fire-resistant material reflects up to 95 per cent of all radiant heat to protect underlayers of asphalt and saturated felt. In addition, aluminum further protects underlayers because it does not absorb water and eliminates oxidation to prevent brittleness in winter temperatures. Wood or concrete roof deck is first covered with 30-pound asphalt felt, mopped with hot asphalt, covered with one layer of aluminum roofing material, mopped with hot asphalt and then covered with second layer of aluminum roofing. Weight per square of roof area is approximately 102 pounds. Roofing made by **Reynolds Metals Co.**, 2000 S. Ninth St., Louisville 1, Ky.

Mention Item NED-3822 when writing

INDUSTRIAL ADHESIVE TAPES

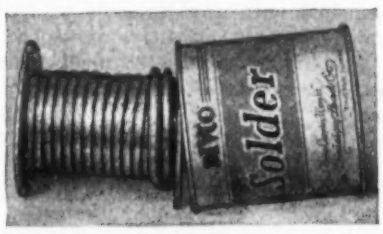
Two new types of adhesive tapes which have wide range of applications have been added to line of industrial tapes. Tape No. 158 is nonstaining against white enamel and white or pastel air drying lacquers. It possesses tensile strength of 46 pounds per inch of width and has excellent adhesion. This tape is available in ¼ to 36-inch widths and 60-yard lengths.

Tape No. 263 is exceptionally strong, fiber glass cloth backed, thermosetting adhesive type. It combines features of chemical and heat resistance with pressure sensitive adhesive which external or operating heat will thermoset to form semigasproof bond. Electrical properties of tape make it suitable for holding in coil winding operations and for slot edging. It has electrical strength of 3150 volts. This tape is recommended also for use as joint sealer in heating and ventilating equipment and ducts.

Sample rolls of either type of tape are available free of charge for test purposes. Made by **Kendall Co.**, Bauer & Black Div., 2500 S. Dearborn St., Chicago 16, Ill.

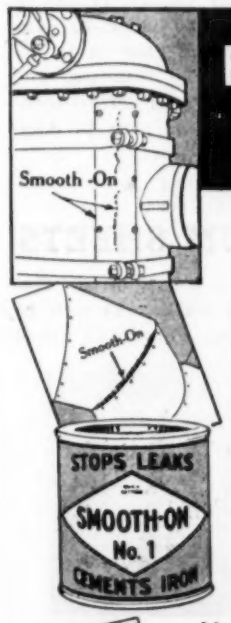
Mention Item NED-3823 when writing

METAL SOLDER SPOOL COVER



Of 'snap-on' type, metal cover now furnished on Divco 1-pound spools of acid core, rosin core and solid wire solder provides complete protection to material while in stock and when in use. Solder is protected from dents, abrasions and exposure to air which dulls surface color. Cover prevents uncoiling of wire and possible tangling when carried in tool kit. Made by **Division Lead Co.**, Dept. 109, 836 W. Kinzie St., Chicago 22, Ill.

Mention Item NED-3824 when writing



Repairs both Cast and Sheet Metal

The quick-hardening, fast-clinging, temperature-resistant properties of Smooth-On No. 1 Iron Cement make it just right for countless repairs in industrial plants, shops, homes. It seals cracked castings, stops leaks in breeching, tightens loose rivets, bolts, screws and machine parts. Does not require use of heat or "gadgets". Any handy man can use it successfully. Buy Smooth-On No. 1 in 1-, 5- or 20-lb. size and keep it handy. If your supply house hasn't Smooth-On, write us.

FREE Famous Repair Handbook

Now in its 28th edition, this 40-page, fully illustrated, pocket-size manual shows many short-cut, time-saving, money-saving repairs to machinery, equipment, pipe lines, etc. Drop us a line for YOUR free copy.

SMOOTH-ON MFG. CO., Dept 10E
570 Communipaw Ave., Jersey City 4, N. J.

SO-292

Do it with **SMOOTH-ON**
THE IRON CEMENT OF 1000 USES

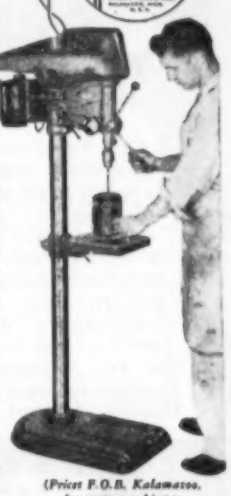
Mention Item NED-3825 when writing

TODAY'S Big Drill Press VALUES Carry This Quality Proven Trade Mark

Atlas — ATLAS PRESS CO.

15" BENCH DRILLS $69.00

15" FLOOR DRILLS $79.00 Less Pulley Guard



● Whatever your needs for drill presses—tool room, laboratory maintenance, or production—there are none on the market today that excel these Atlas drills in precision, long wearing qualities, and low cost. Comparisons of specifications and production records prove it. The reasons why are easily appreciated. First, is the exclusive Atlas "floating drive" spindle design—with 4 deep grooved SKF bearings—that eliminates all belt pull or torque on the spindle. It assures smoother operation, particularly on deep holes, and reduces wear. Second, is the extra weight and massiveness of Atlas castings for extra solidness to minimize vibration. Ask your Atlas distributor to point out all of the Atlas operating features, or send for latest catalog.

(Prices F.O.B. Kalamazoo, less motors, subject to change without notice.)

ATLAS PRESS CO. 523 N. PITCHER ST. KALAMAZOO, MICHIGAN

Mention Item NED-3826 when writing

JOHNSON UNIVERSAL BRONZE

IN STOCK FOR IMMEDIATE DELIVERY

Over 350 Sizes

Completely machined bars of the highest quality bearing bronze on the market. Complete stocks in every industrial center enables you to get the *right* size the day you want it. Write for stock list and location of nearest source of supply.

JOHNSON BRONZE
SLEEVE BEARING HEADQUARTERS
580 S. MILL STREET NEW CASTLE, PA.

Mention Item NED-3827 when writing

Quiet compressor intake noise

Don't put up with chugging and puffing of your compressor. You can quickly stop the noise by installing a Burgess-Manning Cleaner-Snubber. At the same time the noise is quieted, the intake air is filtered to prevent entrance of dust and dirt into your compressor or blower. This unit can be mounted at any angle, or inverted if necessary. Write for catalog sheet.

BURGESS-MANNING COMPANY
749-R EAST PARK AVE., LIBERTYVILLE, ILL.
Please send me information on Burgess Snubbers.
☐ Air Intake ☐ Exhaust
Name .....
Company .....
Address .....
City ..... State .....

Mention Item NED-3828 when writing

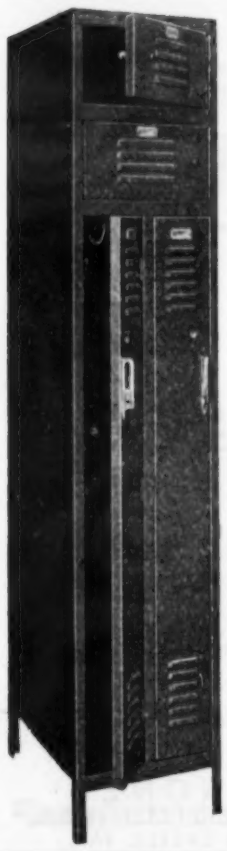
One major reason for the wide use of Tufflex—the felted wood fiber blanket material—is its ease of fabrication. Available in a wide variety of types, thicknesses and densities, Tufflex cuts easily with sharp edges to any size or shape. Soft as lamb's wool, Tufflex has unusual compressive resistance against heavy impact blows. It is clean, non-irritating—has high insulation and sound deadening value. Low in initial cost, Tufflex pays for itself in a wide variety of applications. For full information, write Wood Conversion Company, Dept. 127-58, First National Bank Building, St. Paul 1, Minnesota.

TUFFLEX*

MADE BY THE MAKERS OF Balsam-Wool

*REG. U. S. PAT. OFF.

Mention Item NED-3829 when writing



1869 Penco

A SPACE SAVER!

The Penco Two-Person Steel Locker, Type 734, is designed for use in cramped quarters or for any installation where a saving in floor space is an important consideration. Two persons are comfortably accommodated in the space usually allotted to a single person.

The Usual High Quality Penco Construction Conforms to Federal Government Specifications

Write for literature. Permit Penco Engineers to determine the most efficient arrangement for your requirements.

PENN METAL CORPORATION of PENNA.

L. Lewis Sagendorph, Founder, 1842-1909

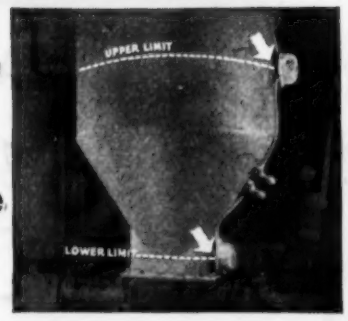
82 Oregon Ave. Philadelphia 48, Pa.

Fabricators of Steel Lockers, Cabinets, Shelving and Corrugated Metal Pipe In Business Continuously Since 1869

Mention Item NED-3830 when writing

BIN-DICATORS

...Release Men for Productive Work!



Many installations of two Bin-Dicators arranged as shown have released a man for productive work who formerly stood by to start and stop an elevator or conveyor as the bin filled or emptied.

When the level of material falls to the "Lower Limit," the Bin-Dicator will automatically start the feeding machinery. When the level of material rises to the "Upper Limit," the Bin-Dicator will automatically stop the feeding machinery.

Bin-Dicator Company • 14616 E. Jefferson • Detroit 15, Michigan

Free

Please send new 20 page illustrated catalog giving complete information and specifications on Bin-Dicators.

Name_____

Address_____

City_____ State_____ D5

Mention Item NED-3831 when writing

New Processes & Materials

FLOOR PATCHING MATERIAL

Having wide range of industrial applications, Trowel - In floor patch and resurfacer is easily applied and is supplied as complete package consisting of resurfacer, primer and dryer units. It is recommended for feather - edge repairs and patches over concrete, stone, brick and composition floors; complete overlays on concrete, brick, composition, steel and wood floors; repairing stair treads; making expansion joints; setting floor plates and drains; leveling linoleum and tiles; waterproofing concrete roofs; and insulating concrete slabs from vibration.

Material can be applied by unskilled labor and produces finished surface in as little as 18 hours. It requires no heating and is applied ⅜-inch thick over previously cleaned floor. Complete unit consists of two metal drums and waterproof bag. Several sizes of units are available. Made by **Flexrock Co.**, 3603 Filbert St., Philadelphia 4, Pa.

Mention Item NED-3832 when writing

INDUSTRIAL ADHESIVE TAPES

Pressure sensitive Mark 'Andy industrial adhesive tapes can be used for simultaneous sealing and labeling of small packages; providing operating instructions, servicing instructions, warning labels, inspection certificates, warranties, guarantees and dealer and brand identification; part marking; coding and wire wrapping. Any message or design can be reproduced, and because printing is actually sealed into tape, it cannot be smeared or rubbed off. Shiny plastic finish prevents absorption of grease and dirt.

Available in numerous background colors, tape can be furnished with any message printed in any one or two colors of ink. Consecutive as well as repeated numbering is possible. Furnished to meet individual needs, tape is available in lots of twenty 54-foot rolls and up, and special lots of four rolls with printing only are available from **Market Development Co.**, 572 Washington St., Wellesley 81, Mass.

Mention Item NED-3833 when writing

STAINLESS STEEL PRODUCTION

Showing use of oxygen and other modern techniques in electric furnace production of stainless steel, full-color 16-millimeter motion picture entitled "Melting and Refining of Modern Steels" encompasses entire process as utilized in 50-ton electric furnace. Process of injecting oxygen directly into molten metal for carbon reduction is portrayed graphically by means of telephoto lens photography which makes it appear the camera is actually inside the furnace. Length is 20 minutes, and film is available free of charge for showings before technical groups. Requests for film should be sent to **Allegheny Ludlum Steel Corp.**, Pittsburgh 22, Pa.

Mention Item NED-3834 when writing

EMBOSSED ALUMINUM SHEETS

Such roller-die embossed patterns as squares, diamonds, stucco and simulated grained leather as well as crosswise and lengthwise ribs provide aluminum sheet

with attractive appearance, eliminate additional surface finishing operations and increase sheet stiffness. Embossed sheet can be supplied in thicknesses ranging from 0.010-inch to 0.040-inch and in widths from 12 to 48 inches. Coiled sheet can be furnished in same thicknesses and in widths from 6 to 36 inches. Material is suited for such applications as truck bodies, stove fixtures, toys, air conditioner housings, doors, cabinets, buckets, tubs, plumbing trim and many electrical fixtures and appliances. Made by **Reynolds Metals Co.**, 2000 S. Ninth St., Louisville 1, Ky.

Mention Item NED-3835 when writing

STRONG...SMOOTH SILENT

PRECISION MADE BY ATLAS

Built for long rugged wear . . . designed for silent, smooth transmission. Atlas Roller Chain meets all American Standard Chain specifications. For full engineering assistance to help solve chain problems on your products or in your plant, call on Atlas Engineers. For the new Atlas price and specification folder write to

ATLAS CHAIN & MANUFACTURING CO., PHILA. 24, PA.

ATLAS ROLLER CHAIN

Mention Item NED-3836 when writing

HALLOWELL

READY-MADE MOVABLE TOOL STANDS OF STEEL

Fig. 1855

are built of sturdy steel welded throughout and equipped with free-rolling casters, which enables you to keep your tools with you as you move from job to job. The steel drawers, as shown, can be locked ... just in case. Available with two drawers as illustrated above; with one drawer . . . or without drawers, depending on your needs.

HALLOWELL READY-MADE WORK-BENCHES OF STEEL

Fig. 732
Pat'd and Pats. Pending
Drawer is extra

are the ideal ready-made addition to any factory. "Hallowell" Benches may have steel tops; smooth, high-grade laminated wood tops; or steel covered with "Tempered Presdwood." The "Hallowell" Bench—above—is made in a number of standard heights, widths and lengths—making several hundred standardized combinations available. It stands firm without costly bolting to the floor—may also be joined end-to-end to form a continuous work-bench of any desired length. Attractive prices and deliveries. Ask for the "Hallowell" Shop Equipment Catalog.

Send for the name and address of your nearest "Hallowell" Industrial Distributor.

STANDARD PRESSED STEEL CO.

JENKINTOWN, PENNA. BOX 581

Boston, Chicago, Detroit, Indianapolis, St. Louis, San Francisco

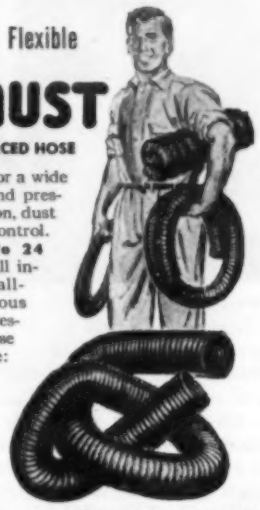
Mention Item NED-3837 when writing

HOSE FOR USE IN ANY INDUSTRY!

Light, Strong, Flexible

FLEXAUST

SPIRAL-REINFORCED HOSE



Flexaust is suitable for a wide variety of suction and pressure uses in ventilation, dust collection and fume control. **SIZES 1¼ inches to 24 inches.** Write for full information on this all-purpose hose. Various Flexaust types, accessories, and other hose types also available:

BLOFLEX *Non-reinforced collapsible*

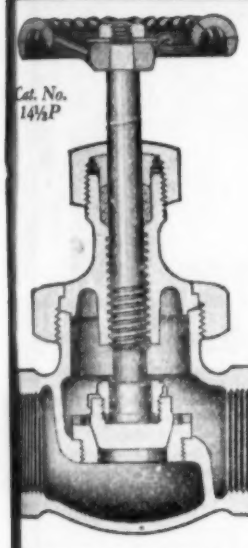
PORTOVENT *Ring-reinforced retractable*

AMERICAN VENTILATING HOSE COMPANY

Dept. NE-5, 15 Park Row, New York 7, N. Y.
Branch Offices:
New Orleans, La., San Francisco, Calif., Washington, D. C.
Plants: Amesbury, Mass.

▲ Mention Item NED-3838 when writing ▲

Back in the CRANE Line!
150-Pound Plug Type Disc Brass Globe and Angle Valves



***WORKING PRESSURES:** Up to 150 pounds steam; 300 pounds cold water, oil, or gas, non-shock.*

WHERE TO USE THEM. Recommended for all spots where flow is throttled, and where operating conditions are severe. Ideal for soot blower, blow-off, boiler feed, drip and drain lines.

WHY THEY GIVE BETTER SERVICE. They are designed throughout for tough work. Plug type disc and seat provide extra-wide bearing surfaces for maximum resistance to wiredrawing and damage by foreign matter. Taper of disc permits easy regulation of flow.

Seating materials (Crane Nickel Alloy to Exelloy) are harder, tougher, and stronger than metals ordinarily used in brass valves. They have higher resistance to wear, temperature, galling, and scoring.

Write for circular AD-1668 describing these valves.

CRANE CO., 836 S. Michigan Avenue, Chicago 5, Ill.
Branches and Wholesalers Serving All Industrial Areas

CRANE *Everything from CRANE for Every Piping System*

VALVES • FITTINGS • PIPE • PLUMBING AND HEATING

▲ Mention Item NED-3839 when writing ▲

GUARDIAN selected by HOT BEVERAGE VENDORS for complete coordination of circuit and design

1 SELECTION
2 COIN CONTROL
3 VENDING CYCLE Change Making
4 LIQUID LEVEL Empty Ingredients Lack of Change Absence of Cup
5
6 A COMPLETE PACKAGE CONTROL

The Guardian Change Maker consists of motor driven cam operated switches and Guardian Series 600 Relays. It accepts nickels, dimes, quarters, starts the vending cycle and automatically makes correct change.

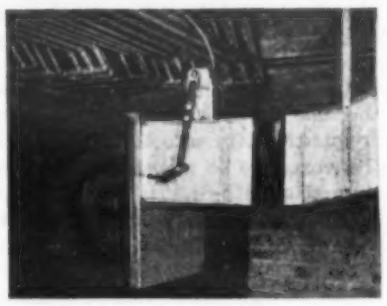
★ Here is a tough control problem. SIX completely coordinated control factors: (1) locking the selection of black coffee, coffee with sugar only, coffee with cream only, coffee with cream and sugar and releases the vending cycle. The Guardian Coin Control (2) sort coins, makes change. More Guardian Controls (3) mix and pour drinks, (4) control liquid levels, (5) stop or alter the vending cycle, or (6) a complete package control available combining most of the foregoing operations. 90% of all vending machine manufacturers specify Guardian controls. Ask us to solve your problem.

GUARDIAN ELECTRIC
1626-F W. WALNUT STREET CHICAGO 12, ILLINOIS
A COMPLETE LINE OF RELAYS SERVING AMERICAN INDUSTRY

▲ Mention Item NED-3840 when writing ▲

New Processes & Materials

DUCT-CONNECTING TAPE



Characterized by resistance to heat, light and deterioration, Fiberglas flexible duct-connecting tapes form permanent tailored connections that are air-tight. Type No. 263 single-faced and No. 281 double-faced adhesive tape are both used for sealing. Tape No. 190 is Neoprene coated on both sides and is used to complete union. Adhesive used is vulcanizable and actually doubles its strength when subjected to heat. Tapes are recommended for sealing of pipes, ducts and seams in heating, piping, ventilating and air conditioning installations to replace caulking, cements, straps, screws, clamps and welding. Individual tapes are available in various widths, lengths and thicknesses to meet almost any individual requirement, and they will adhere to any type of material. Made by **Kendall Co.**, Bauer & Black Div., Industrial Tape Dept., 2500 S. Dearborn St., Chicago 16, Ill.

▲ Mention Item NED-3841 when writing ▲

WATER-RESISTANT ADHESIVE

Water-resistant F-1402 adhesive has been developed for use in installing metal and plastic tile over plaster, plywood, concrete and other bases. It has low shrinkage factor which aids materially in preventing face of tile from becoming concave. This nonputty material contains no linseed oil, will not run out at joints and does not permit tiles to loosen after installation. It is not necessary to prime wall surfaces before application of adhesive. One gallon will cover approximately 50 square feet of wall surface, and tile can be applied 3 or 4 hours after it has been spread on wall. Adhesive is available in 1, 3½ and 5-gallon cans. Made by **Armstrong Cork Co.**, 1270 State St., Lancaster, Pa.

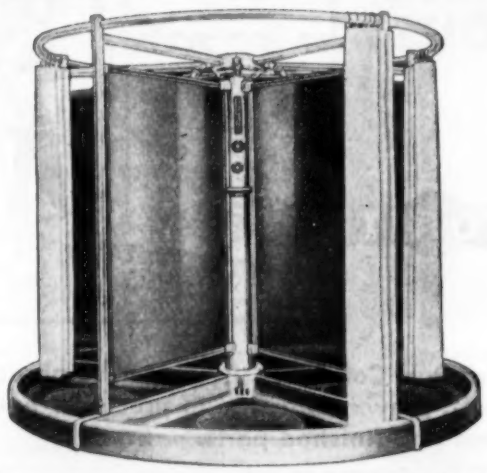
▲ Mention Item NED-3842 when writing ▲

PARTS CLEANING SOLUTION

Light brushing will remove all gum, grime and varnish after metal parts have been soaked in Penn Drake Gumout cleaning solution. Cleaner does not irritate hands. It is recommended for use in maintenance departments, airports, marine bases and truck and bus service departments. In addition to being supplied in illustrated 5-gallon pails which serve as convenient cleaning container, material is available in 1 and 2-gallon cans and 15, 30 and 55-gallon drums. Made by **Pennsylvania Refining Co.**, 2686 Lisbon, Cleveland 4, O.

▲ Mention Item NED-3843 when writing ▲

SELECTED BY MODERN INDUSTRY



● These convenient, partially assembled 5- and 3-Stall Shower Units can be quickly installed in either new or old buildings on any kind of floor including wood. One Bradley 5-Stall requires only three supply lines—hot, cold, and drain, in comparison to 15 plumbing connections needed for five conventional "single-stall" showers.

This simplified installation plus complete absence of dirt-collecting corners and dark areas cuts cost of maintenance and janitor detail. Further savings are realized in reduced hot water expense and total water consumption. BRADLEY WASHFOUNTAIN CO., 2253 W. Michigan Street, Milwaukee 1, Wisconsin.

Distributed Through Plumbing Wholesalers

BRADLEY *multi-stall showers*

Write for your copy of Catalog 4701 today

▲ Mention Item NED-3844 when writing ▲

ADSCO

HEAT EXCHANGERS

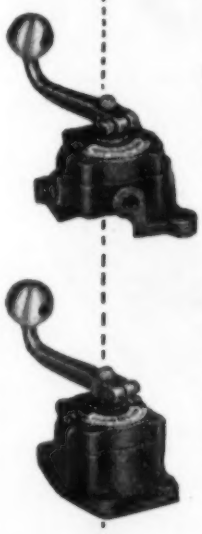
● Whether you are interested in Storage Water Heaters, either Vertical or Horizontal types, or Heat Exchangers, for almost any type of service, ADSCO is prepared to meet your requirements. Write for Bulletin No. 35-75 for Storage Heaters and No. 35-76 for Instantaneous Heaters.

AMERICAN DISTRICT STEAM CO.
NORTH TONAWANDA, N. Y.
SINCE 1877

▲ Mention Item NED-3845 when writing ▲

CUSTOM DESIGNED — for tubing and light piping
PRECISION BUILT — for accurate, effortless control

HANNA *Unitite Jr.* **1/4" VALVES**



For tubing or piping . . . for small air or hydraulic cylinder control . . . for pilot control of larger valves, and for many other uses, Hanna ¼" Valves are perfectly suited.

They are packless, permanently tight and designed with the skill and precision that distinguish all Hanna products. A feature of these Unitite Jrs. is the handy control lever which requires only 80° movement to effect a complete reversal. Essentially 4-way valves, they operate equally as well as 3-way valves—simply by plugging any one port.

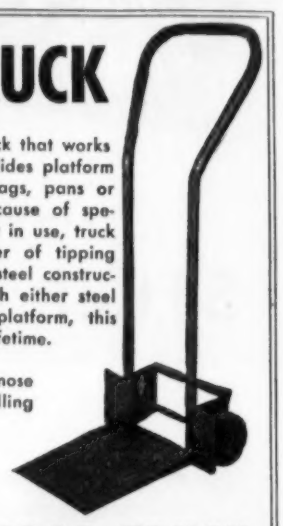
Three mounting styles—standard mount, column mount, and manifold mount, are available to meet your requirements. All operate with pressures up to 500 p.s.i., for air, oil or water.

For complete information on Hanna Valves send for Bulletin 235.

Hanna Engineering Works
HYDRAULIC AND PNEUMATIC EQUIPMENT . . . CYLINDERS . . . VALVES . . . RIVETERS
1765 Elston Avenue, Chicago 22, Illinois

▲ Mention Item NED-3846 when writing ▲

SHOVEL TRUCK



Reduce handling costs with this truck that works like a shovel—a kick of the foot slides platform under the load easily. Boxes, bags, pans or barrels cannot rub on wheels because of specially designed guards. When not in use, truck occupies small space. No danger of tipping over if accidentally bumped. All-steel construction, Hyatt bearings, equipped with either steel or rubber wheels, large sturdy platform, this shovel truck is built to last a lifetime.

A SPECIAL DESIGN with shorter nose and handle is available for handling kegs in screw machine plants.

ALL-STEEL WELDED CONSTRUCTION

SCOOP TRUCK

The same sturdy construction as the shovel truck. In addition to handling boxes, cases, kegs, etc. will also handle long round or flat bar stock or similar loads normally requiring a much larger truck. Simply scoop load on. Made in three sizes:

18" x 24" $30.50
20" x 28" 32.50
24" x 36" 35.00
add $8.50 each for rubber-tired

Either of the Above Trucks on a 10-Day Approval

FISHER EQUIPMENT COMPANY
20140 LIVERNOIS ST. DETROIT 21, MICH.

▲ Mention Item NED-3847 when writing ▲

A RADICALLY DIFFERENT RESISTOR

Where low temperature rise, space and weight are vital factors the MW Insulated Wire Wound Resistor provides an ideal combination of essential characteristics. A complete departure from conventional resistors, this unit offers maximum adaptability to complex design requirements.

IRC's type MW offers many opportunities in cost reduction:
•Low initial cost •Flexibility in providing taps at low cost
•Saving in space •Lower mounting cost

Encased in durable phenolic compound for complete insulation. Mounting brackets aid in rapid heat dissipation. Multisection feature offers extreme flexibility for voltage dividing applications.

For detailed information, write for Catalog Bulletin B-2. International Resistance Co., 401 N. Broad St., Philadelphia 8, Pa. In Canada: International Resistance Co., Ltd., Toronto, Licensee.

INTERNATIONAL RESISTANCE COMPANY IRC
Wherever the Circuit says —WW—

Mention Item NED-3850 when writing

WITH MATTHEWS
STEEL STAMPS

• Whatever mark you wish to make —letter, figure, symbol or trademark —whether by hand or by machine, you can do it better with Matthews steel stamps and dies. To solve your marking problems write today for Matthews descriptive literature.

JAS. H. MATTHEWS & CO.
3943 FORBES STREET PITTSBURGH 13, PA.
BRANCH PLANTS
NEW YORK, BOSTON, CHICAGO, PHILADELPHIA, NEWARK, SYRACUSE
District Sales Offices: Cleveland, Cincinnati, Birmingham, Dallas

Mention Item NED-3851 when writing

New Processes & Materials

FUEL OIL CLEANER

Added directly to fuel oil in tank, Houghto-Solv removes sludge deposits in heating system, stops formation of soot and cleans tanks, line strainers and nozzles. Additive causes sludge to go into solution with fuel oil and become combustible part of fuel. It meets all plant safety regulations, is safe to use and store, is not toxic and is noncorrosive to metals and working parts of heating system. Houghto-Solv is used in ratio of 1 quart per 1000 gallons of fuel oil and costs less than 1/16 cent per gallon of fuel oil. Made by **E. F. Houghton & Co.**, 303 W. Lehigh Ave., Philadelphia 33, Pa.

Mention Item NED-3852 when writing

FLEXIBLE TUBING

Composed of Buna and Neoprene base synthetic tubing encased in wire braid protective sheath, Ronaflex flexible tubing resists temperatures up to 300 F, vibration, internal and external corrosive solvents and fumes. Fluid pressures up to 1000 pounds per square inch can be carried by ¼-inch tubing, and larger sizes will withstand proportionately less. Standard sizes from ¼ to 2 inches inside diameter in complete range of lengths up to 200 feet in small diameter and 50 feet in larger diameters can be supplied. Lightweight couplings supplied with standard hose assemblies can be snapped on and off fittings readily yet provide leakproof joints. Packing or manual tightening is not required. Made by **Ronaflex Tubing Co.**, Packard Bldg., Philadelphia 2, Pa.

Mention Item NED-3853 when writing

SEALING-PACKING MATERIALS

Natural properties of both felt and Hycar latex rubber have been combined to produce Vistex and Oil Foil mechanical sealing, packing and gasketing materials. Vistex latex-impregnated and laminated felt base packing material was originally developed as self-lubricating packing for automotive hydraulic shock absorbers. It is currently being used as packing washers for fuel pumps, plunger seals, faucet seals and gaskets and as seals and washers for all types of organic solvents, oils and fluids.

Oil Foil seals combine single laminated bearing seal washer and one or more impervious septums of 1/64 or 1/32-inch Hycar sheet. They can retain oil to extent of more than 400 per cent their own weight, ready to bleed oil to point of friction if required. Septum on outside surface of washer excludes dirt and moisture and prevents loss of lubricant. Made by **American Felt Co.**, Glenville, Conn.

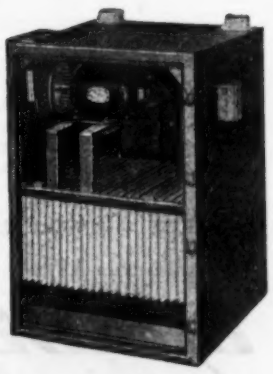
Mention Item NED-3854 when writing

Torit Dust Collectors, by capturing abrasive dusts, prevent damage to precision equipment and finished parts.

TORIT Dust Collectors are self-contained units that trap dust from a wide variety of machines, and recirculate the cleaned air. Compactly designed, they occupy little space and use a minimum of piping.

TORIT Dust Collectors range in size from ⅓ HP to 5HP. They fit all standard polishing, cut-off and grinding machines, and are easily adapted to special equipment or unusual production set ups.

TORIT Dust Collectors are moderately priced and exceptionally economical to operate. Standard models are available for immediate delivery. For details and the latest TORIT catalog write:



TORIT MANUFACTURING CO. 298 Walnut Street St. Paul 2, Minn.

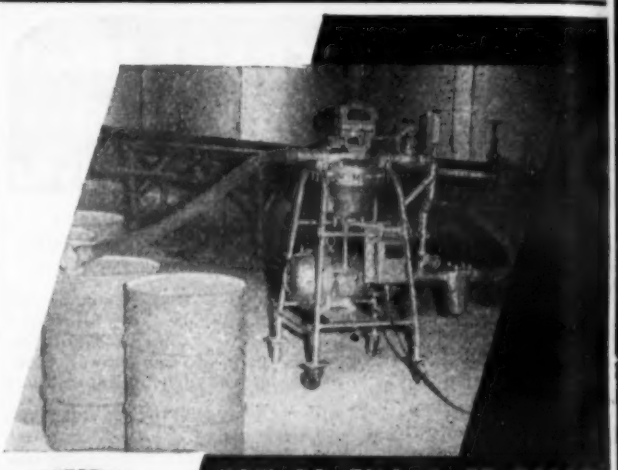
Mention Item NED-3855 when writing

Raise the Feed!
CUT COSTS WITH
T-J CUTTERS

Do your cutting in tough die steels *faster*... with less breakage... and *more work between grinds!* Use T-J Die Sinking Milling Cutters! They're designed for accuracy and sturdiness... made from a standard, extremely high grade steel ... properly machined... scientifically heat-treated and accurately ground. Many styles and sizes... proved on countless tough jobs! Send for new catalog. The Tomkins-Johnson Co., Jackson, Michigan.

FOR TOUGH JOBS SPECIFY T-J
TOMKINS-JOHNSON
DIE SINKING MILLING CUTTERS

Mention Item NED-3856 when writing



BOWSER EQUIPMENT AT WORK

HOW TO FILL A 50-GALLON DRUM IN LESS THAN A MINUTE
... and cut production costs!

* NAME ON REQUEST

It's done with Bowser portable barreling meters ... like the one shown above in a prominent Kansas City plant*.

These fast, precision units
- Save time and labor
- Provide accurate production records
- Compensate automatically for changes in liquid temperature
- Deliver predetermined quantities automatically

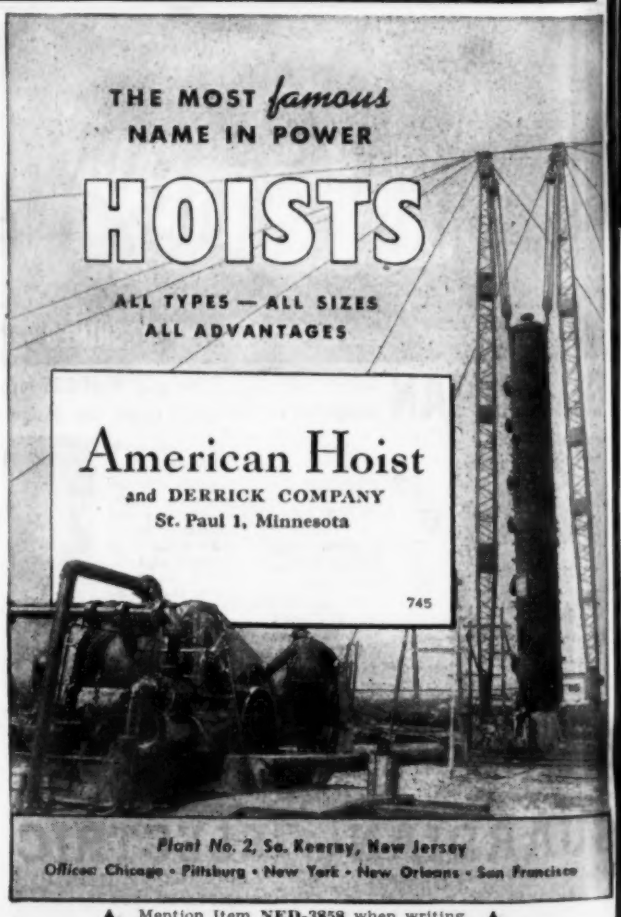
They may be the answer to a production problem in your plant, too. For complete information write

BOWSER, INC., 1391 CREIGHTON AVE., FORT WAYNE 2, IND.
SALES AND SERVICE IN ALL PRINCIPAL CITIES

LIQUID CONTROL SPECIALISTS SINCE 1885

Mention Item NED-3857 when writing

THE MOST *famous* NAME IN POWER
HOISTS
ALL TYPES — ALL SIZES
ALL ADVANTAGES



Plant No. 2, So. Kearny, New Jersey
Offices: Chicago • Pittsburg • New York • New Orleans • San Francisco

Mention Item NED-3858 when writing

A PRINTING PRESS PROBLEM: VACUUM AND PRESSURE BOTH— SOLVED WITH

*Visioneering**

Gast Rotary AIR MOTORS to 1 H.P. COMPRESSORS to 30 lbs. VACUUM PUMPS to 28 in.

PLUS ONE Gast ROTARY PUMP!

Here's Visioneering applied — by designers of a high-speed printing press! With both vacuum and pressure, the press feeds up to 7,000 sheets per hour. ONE Gast Rotary Air Pump does it with ¼ H.P. Air Volume of 7 C.F.M. results at only 950 R.P.M. Gast Rotary Design with 4 plastic vanes is quiet, cool-running . . . has been standard equipment since 1940.

Project your own Visioneering through this example — and consider how "Air may be your Answer" to original equipment problems. Gast Rotary Vacuum Pumps, Compressors and explosion-proof Air Motors help *improve product efficiency — reduce bulk — increase safety* — with *smooth, "pulseless"* performance. We'll be glad to cooperate if air pressure, vacuum, or power can be applied on your products. For details, write Gast, describing your problem.

*Visioneering— Broad vision plus engineering skill.

"AIR may be your Answer!"

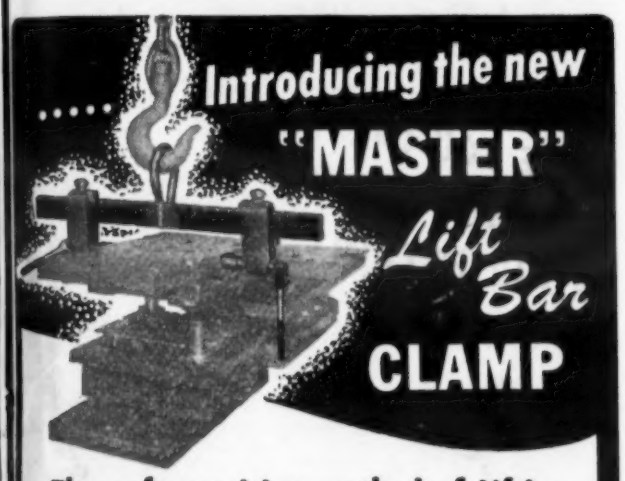
WRITE TODAY! Request your copy of this IDEA-CATALOG.

GAST ROTARY AIR MOTORS COMPRESSORS VACUUM PUMPS

GAST MANUFACTURING CORP.
115 Hinkley St., Benton Harbor, Mich.

Mention Item NED-3859 when writing

Introducing the new "MASTER" Lift Bar CLAMP



The safe precision method of Lifting and Lowering in Balanced Position—

- Eliminates Chains, Ropes, Pinch Bars, Slings, etc.
- Reversible Locking Jaws permit inside or outside clamping.
- Handles both rough and finished work without danger of scratching, denting or gouging. Saves time and money. For use in Machine Shops, Die Shops, Boiler and Welding Shops, Monument Shops, Heat Treating Plants, Pattern Shops, Garages.

Write for illustrated catalog, specifications.

PARSONS ENGINEERING CORP.
2547 EAST 79th ST. • CLEVELAND 4, OHIO

Mention Item NED-3860 when writing

New! Improved! TURRET LINE BY Wheeler

DESIGNED FOR *Unique, New Turret Type Lampholders*

• This important advance in light engineering embodies all the quality refinements of "Skilled Lighting" plus the ingenious, new G. E. Turret Lampholders. These unique lampholders provide longitudinal spring tension that holds lamps securely. Double and Triple Lampholders each enclosed in unit steel housings include built-in, readily-accessible starter receptacles.

The new Turret Line has the famous Wheeler Vitreous Porcelain-Enamel finish. Designed to meet RLM Standards . . . for all standard suspensions. Available for 2 or 3 40-watt lamps; individual or continuous runs. For complete information write Wheeler Reflector Co., 275 Congress St., Boston 10, Mass.

Distributed Exclusively by Electrical Wholesalers

Wheeler REFLECTOR COMPANY
Lighting Equipment Specialists Since 1881

Mention Item NED-3861 when writing

NEW *Literature* AND *Catalogs*

Stainless Steel Tubing & Pipe

Carpenter Steel Co., Alloy Tube Div.—92-page illustrated data book covers such subjects as selection and specification of stainless tubing; corrosion resistance, heat resistance and heat transfer characteristics; and fabrication. In addition, tolerances, sizes and shapes of Carpenter stainless tubing and pipe are given.

Mention Item NED-3862 when writing

Battery Powered Hand Trucks

Yale & Towne Mfg. Co.—30-page illustrated catalog covers complete line of Worksaver battery-powered hand trucks which combine light weight and maneuverability of hand truck with electric power features of ridden truck. They are especially suited for carrying loads up to 6000 pounds through narrow aisles or across comparatively weak floors, areaways or bridges.

Mention Item NED-3863 when writing

Magnetic Tape Recorders

Amplifier Corp. of America, Magnephone Div.—8-page illustrated catalog No. 4901 describes magnetic tape recorders available in seventeen standard and portable models with playing times ranging from 15 minutes to 8 hours. Also covered are voice-activated instantaneous start-stop clutch, typist reverse control, automatic program timer and other accessories.

Mention Item NED-3864 when writing

High Speed, Tool & Die Steels

Latrobe Electric Steel Co.—80-page pocket-size illustrated catalog entitled "Latrobe High Speed Steels, Tool and Die Steels" contains condensed descriptions and heat treatment and application data on high speed, nondeforming, oil hardening, hot-work, shock and chisel, die casting, water hardening and carbon steels.

Mention Item NED-3865 when writing

Low Carbon Nickel Steel

International Nickel Co.—12-page reprint entitled "Some Properties of Low Carbon 8½ Per Cent Nickel Steel" describes alloy steel that is resistant to embrittling effects of low temperatures, is moderately priced, and can be fabricated readily by usual methods including welding.

Mention Item NED-3866 when writing

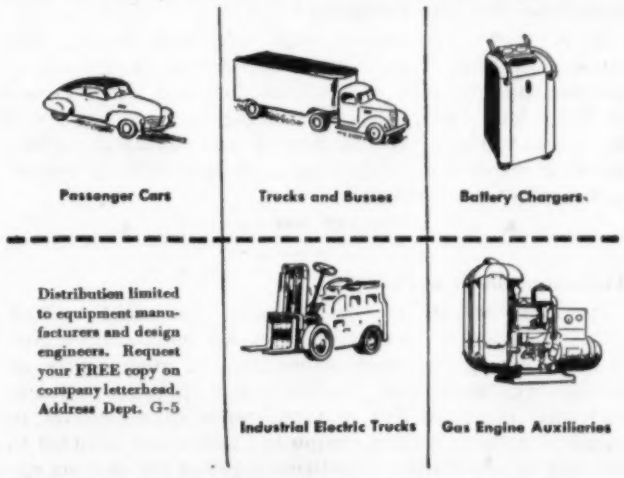
Heating & Ventilating

Industrial Press—576-page illustrated volume "Heating & Ventilating's Engineering Databook" by Clifford Strock which is intended to aid heating, ventilating and air conditioning engineers, contractors, architects and plant engineers places emphasis on data needed in actual design of equipment and installations. Price is $7. Obtainable directly from Industrial Press, 148 Lafayette St., New York 13, N. Y.

Mention Item NED-3867 when writing

Write for your copy of RBM

BULLETIN 200 on automotive electrical control devices for..



R-B-M DIVISION, ESSEX WIRE CORPORATION
Logansport, Indiana

Mention Item NED-3868 when writing

Solves PAPER FEEDING Problem

FOR REMINGTON RAND'S NEW "FILM-A-RECORD"

This new machine is a miniature darkroom where business records, held on the outer surface of a drum, are carried past the lens of a microfilm camera as fast as they can be fed by an operator or an automatic feeder. The problem came in feeding these paper records from a pile in front of the machine through the front opening and onto the drum.

The solution was found by building a close-coiled Fullergript brush into the document feed. This Fullergript brush rotates at high speed thus keeping the documents taut. This brush was chosen, after experimentation, because extra density enables Fullergript to feed paper without turning it sideways, without wrinkling it.

Similarly, Fullergript brushes can be used to solve a wide variety of problems. Just write to . . .

FULLERGRIPT
INDUSTRIAL DIVISION
THE FULLER BRUSH CO.
3530 MAIN ST. • HARTFORD 2, CONN.

Mention Item NED-3869 when writing

turn the HEAT on Production

DC arc-welder users: Standardize on dependable P&H WA-200 machines—for faster work, lower costs

It is heat at the end of your electrodes that speeds welding, reduces costs. And, it's the ability of P&H WA-200 DC arc welders to produce this heat — hour after hour — that maintains stepped-up production schedules.

So, if you use DC arc welding machines, here are a few reasons why it pays you to turn the heat on production with WA-200's:

Simplified control speeds and improves the work — Operators obtain any desired welding current with one simple control.

More flexible service reduces your welding equipment investment — Square frame design permits stacking of machines, providing a more flexible service and a much wider welding range. *No other welder offers this advantage.*

Sturdy construction — There are only two major parts in a WA-200 — the husky one-piece frame and rotating member.

Dynamically balanced rotating member — is mounted in large grease-lubricated ball bearings.

Efficient cooling — through the use of a large multiple-*blade* fan.

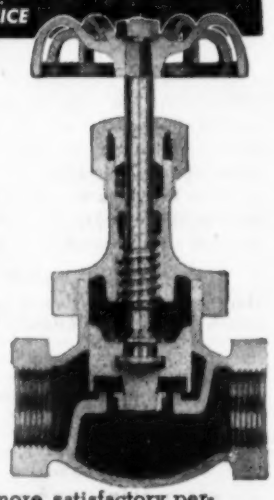
WA-200's have a welding service range from 30 to 285 amps per single unit.

Let your P&H representative or distributor show you why WA-200's get your work out faster and save your money. Write us for Bulletin W34-4.

P&H DC WELDERS
4537 West National Avenue
Milwaukee 14, Wisconsin
HARNISCHFEGER CORPORATION

Mention Item NED-3870 when writing

AN ALL NEW COMPOSITION DISC VALVE
FOR 150 W.S.P.-300 W.O.G. SERVICE



Newly designed from hand wheel to body, this outside bonnet, slip-on composition disc valve contains every latest improvement in renewable disc design.

The deeply indented hand wheel gives a non-slip grip. Complete compression of packing in the deep stuffing box is provided by full threading of packing nut. Heavy outside bonnet permits frequent removal without injury to bonnet or body.

The body and bonnet are precision machined to a hair-line, metal-to-metal contact, making a leak-proof joint. The extra thread engagement gives greatest strength to the body and bonnet joint.

These features add up to longer, more satisfactory performance in heavy duty service. Ohio Brass No. 11 Composition Disc Valves are fully guaranteed for 150 lbs. W. S. P, and 300 lbs. Water, Oil and Gas Pressure.

OHIO BRASS COMPANY, MANSFIELD 1, OHIO

2926-V

Ohio Brass VALVES

Mention Item NED-3871 when writing

EASIEST WAY OUT OF A TIGHT SPOT

"YANKEE"
Offset Ratchet Screw Driver

If there's an inch of clearance above or below the screw and room alongside to move your hand even half an inch, you can drive or draw that screw easily, quickly with a "Yankee" Offset Ratchet Screw Driver No. 3400. Only 3⅞" long, yet it has the power of a heavy, rigid 8" driver, will seat even a No. 14 screw. Two blades, ¼" and ⅜". Special alloy steel, hardened and tempered. Other models—No. 3800 for larger screws, No. 3423 for Phillips Screws; also No. 3600-5 Kit with handle and interchangeable adapters for hollow set and cap screws. All ratcheted to give fast, powerful action with the slightest swing of the arc. Sold by industrial distributors.

Write for the "Yankee" Tool Book

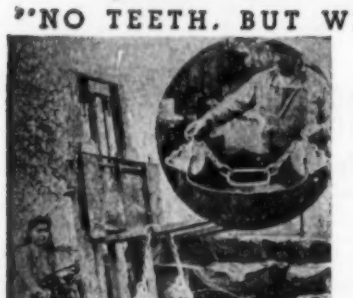
"YANKEE" TOOLS NOW A PART OF
STANLEY
Reg. U.S. Pat. Off.

THE TOOL BOX OF THE WORLD

▲ Mention Item NED-3872 when writing ▲

"GRANNY GRIPS"

"NO TEETH, BUT WHAT A BITE"



Practical and time saving for handling open top containers, sheet stock, boiler plate, or anything over which its jaws can be slipped. Quick and easy to use. Practical for use with lift trucks, overhead cranes, chain falls and jib cranes.

SAVES TIME
PREVENTS INJURIES

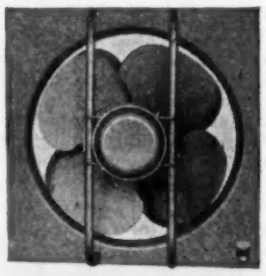
Write for Bulletin L-58

IPCO
Safety Equipment for all Industries
INDUSTRIAL PRODUCTS COMPANY
2807 N. FOURTH STREET • PHILADELPHIA 33, PA.

▲ Mention Item NED-3873 when writing ▲

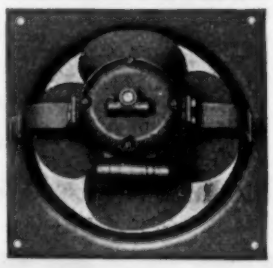
Prompt Deliveries on Peerless Exhaust Fans

A number of sizes and models of Peerless exhaust and ventilator fans are now available for prompt shipment. This is your opportunity to meet your needs with fans of proven performance, attractive design and quiet operation—all carrying the famous Peerless name and powered with Peerless Motors. Send us your requirements.



DE LUXE FANS

Here is an *extremely quiet*, variable speed, attractively designed fan for stores, restaurants, hotels and similar installations. Totally enclosed motors exclude dirt and moisture. Fans may be mounted vertically or horizontally. Supplied for single speed, two-speed, or three-speed operation. Finished in Buckingham grey. 16" to 30" sizes.



SMALL VENTILATOR FANS

These fans provide plenty of air movement for homes, small grills and offices. Motors are totally enclosed. Fan and panels finished in Buckingham grey. Sizes—10-inch 6 blade; 12- and 16-inch 4 blade; 12-inch multiblade.

THE Peerless ELECTRIC CO.
WARREN, OHIO

▲ Mention Item NED-3874 when writing ▲

New Literature—Continued

Asbestos Textiles

Johns-Manville Corp.—Detailed descriptions of asbestos roving, lap, yarn, cloth, clothing, safety curtains, tubing, cord, wick, rope, tape and oil burner wicking are presented in 16-page illustrated brochure "Johns-Manville Asbestos Textiles." Steps in production are shown and applications discussed.

▲ Mention Item NED-3875 when writing ▲

Contractors' Equipment

Gar Wood Industries, Inc., Findlay Div.—In addition to presenting details on improved model 70 Clipper power shovel, 32-page illustrated bulletin No. 846-R contains information on trenchoes, drag lines, cranes and similar equipment. Mevac vacuum power control is applied to all operations of each front end attachment as standard equipment.

▲ Mention Item NED-3876 when writing ▲

Plating & Anodizing Controls

General Electric Co., Appliance & Merchandise Dept.—28-page illustrated booklet on copper-oxide rectifiers and controls for electroplating, anodizing, electrocleaning, electropolishing and other electrolytic processes explains advantages of unit installation of rectifiers and lists complete range of package units for both manually and automatically controlled rectifiers.

▲ Mention Item NED-3877 when writing ▲

Job Evaluation

Prentice-Hall, Inc. — 473-page illustrated book "Job Evaluation" by Jay L. Otis and Richard H. Leukart explains basic problems in wage and salary administration, selecting job evaluation system, planning programs, getting job facts, use of rating scales, wage curve, collective bargaining, and similar subjects. Price is $6.65. Available directly from Prentice-Hall, Inc., 70 Fifth Ave., New York 11, N. Y.

▲ Mention Item NED-3878 when writing ▲

Circular Saw Blades

Motch & Merryweather Machinery Co.—8-page illustrated bulletin No. 200 describes Triple-Chip metal-cutting saw blade which breaks chip into three parts to permit heavier chip to be drawn, thus allowing heavier feeds to be used. Segmental and solid types are covered along with slitting and slotting blades and automatic blade sharpeners.

▲ Mention Item NED-3879 when writing ▲

Reproduction Equipment

Ozalid Div., General Aniline & Film Corp.—24-page illustrated brochure "The Simplest Business System" explains how copies of typing, drawing, writing or printing on translucent paper can be produced in 25 seconds. Also discussed are how to eliminate multiple posting, prepare posters and displays, make charts in full color and duplicate photographs.

▲ Mention Item NED-3880 when writing ▲

Punch Press Feeder

Covert Mfg. Co.—8-page illustrated bulletin "The Feed-O-Matic" discusses how punch press feeder speeds output by eliminating hand and foot operating cycle, eliminates operator hazard and minimizes operator fatigue, increases die life by accurately placing blanks and prevents tripping press unless all conditions of correct operation are met.

▲ Mention Item NED-3881 when writing ▲

Resistance Welding Equipment

P. R. Mallory & Co.—40-page illustrated catalog "Resistance Welding Tips, Holders and Alloys" is devoted to welding tips, holders, accessories, dies and fixtures used in flash, butt and projection welding operations, as well as seam welding wheels, shafts and bushings. Chart showing recommended electrodes for spot welding similar and dissimilar metals is included.

▲ Mention Item NED-3882 when writing ▲

Aluminum Sheet & Plate

Reynolds Metals Co. — 48-page illustrated booklet "Aluminum Sheet and Plate" presents comparative cost analysis and gives short summaries of such topics as formability, weldability, riveting and joining, brazing, soldering, machinability and resistance of aluminum to chemical attack. Weight computing tables are included to aid user in calculating quantities required for various applications.

▲ Mention Item NED-3883 when writing ▲

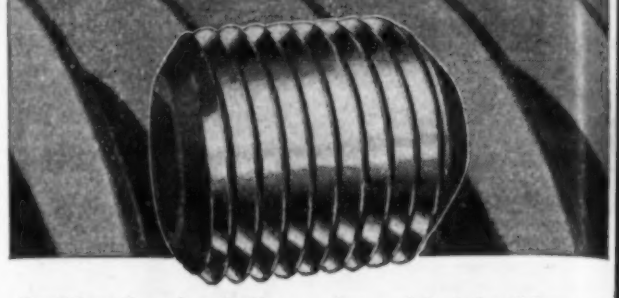
Fabricated Plastics

Fabri-Form Co.—12-page illustrated bulletin "27 Ways to Use Fabricated Plastics" presents recent developments in plastics fabrication methods and shows applications of plastics to many industrial, commercial and consumer products. Facilities for forming, machining, stamping, assembly, finishing and decorating are covered.

▲ Mention Item NED-3884 when writing ▲

You're O.K. with P-K for Dependable

CLASS 3 FIT
in GROUND THREAD Socket Set Screws



Precision thread grinding, offered first in socket set screws by P-K, assures you a dependable Class 3 Fit. Free from hardening distortion, mirror-smooth P-K Ground Thread Socket Set Screws have none of the imperfections common to cut threads.

See and feel the difference! Ask for samples. See why P-K Ground Thread Socket Set Screws put your product out in front assembly-wise and sales-wise! Parker-Kalon Corp., 200 Varick St., New York 14, N. Y. *Available for prompt delivery.*

PARKER-KALON COLD-FORGED SOCKET SCREWS

• SOLD ONLY THROUGH ACCREDITED DISTRIBUTORS •

▲ Mention Item NED-3885 when writing ▲

ARE YOU CARRYING SUMMER SUN ON YOUR PAYROLL?

KOOLSHADE Sun Screen
Keeps Plant Production Up By Holding Summer Heat Down

When your plant starts to steam like a turkish bath, the cost of production climbs with the temperature. Tempers flare, employees get careless, mistakes multiply—the index on the production manager's chart begins to droop below the "break-even" point.

Production costs stay down when summer heat stays outside. Tests prove that rooms protected by KoolShade Sun Screen stay 15 to 20 degrees cooler even on the hottest days. The rays of the sun are deflected before they hit the window—glass conduction of solar heat is reduced as much as 90 per cent.

Yet there is plenty of glareless light—plenty of ventilation. KoolShade plays the part of a miniature venetian blind—excludes only the infra-red heat of the sun's rays. KoolShade is easy to install, easy to put up and take down. It provides clear vision, is completely fire-proof and presents no maintenance problem. It eliminates insect screening.

KoolShade Sun Screen pays for itself in cool comfort and greater efficiency. It makes air conditioning unnecessary in many cases, reduces the cost of air conditioning in others. For complete information on long-lasting, carefully engineered KoolShade Sun Screen, write:

Ingersoll KOOLSHADE

*Trade Mark Property of INGERSOLL STEEL DIVISION BORG-WARNER CORPORATION

MAIL THIS COUPON TODAY

Ingersoll Steel Division,
Borg-Warner Corp., Dept. G5
321 Plymouth Court, Chicago 4, Ill.

Please send free sample, literature, results of comparative tests and name of nearest KoolShade distributor.

Name.....
Company.....
Address.....State.....
City.....

▲ Mention Item NED-3886 when writing ▲

THE VERSATILE, LOW-COST, EASY-TO-INSTALL HEATERS

Rugged CHROMALOX Electric Heaters save time, money and labor wherever fast, economical and easy to control heat is needed in processing or product. They come in types, sizes and capacities to fit every specific production need.

Get this booklet for more information
It will show you 100 ways to use these versatile heaters in your plant.

EDWIN L. WIEGAND CO., 7509 THOMAS BOULEVARD, PITTSBURGH 8, PA.
See other advertisement on page 4
CHROMALOX IB-68
ELECTRIC HEAT FOR MODERN INDUSTRY

▲ Mention Item NED-3887 when writing ▲

STAINLESS STEEL *Solenoid Valves* ★

THREE WAY - TWO POSITION
TWO WAY - NORMALLY CLOSED
TWO WAY - NORMALLY OPEN

Skinner Stainless Steel Solenoid Valves are rugged, accurate, compact and long lived. They are worthy additions to any product you may have which requires control or metering of fluid and gaseous media. Skinner will be pleased to make recommendations on your particular design applications — they have for hundreds of others. Write today for details and catalog.

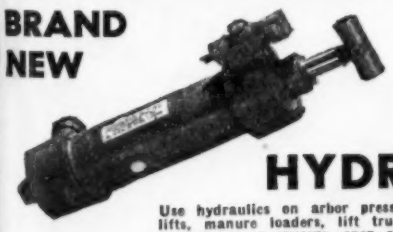
★ Standard pressure range, 5 to 250 psi
★ Dimensions 2¾" high x 1⅝" dia.
★ Impregnated coils withstand moisture and condensation
★ Soft insert seats prevent leakage
★ Spring loaded for positive action
★ Stainless steel parts highly resistant to corrosion and wear
★ Power consumption 10 watts max.
★ Pipe connections to specification
★ Also many special valves for handling pressures from 5 to 850 psi

Skinner ELECTRIC VALVE DIV.
formerly Allied Control Valve Division
THE SKINNER CHUCK COMPANY
135 Belden Ave., Norwalk, Conn.

▲ Mention Item NED-3888 when writing ▲

WAR SURPLUS BARGAIN SPECIAL!

BRAND NEW



AIR or OIL

HYDRAULICS

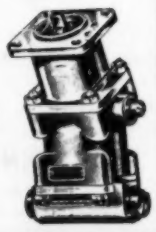
Use hydraulics on arbor presses, hydraulic presses, hay lifts, manure loaders, lift trucks—push or pull, tilt or turn, press or squeeze, open or close, lift or lower—and other hydraulic and industrial applications. Use with either air or oil . . . of finest precision workmanship.

1. **Double action. 3" bore, 12" stroke.** All steel hydraulic cylinder, will lift up to 12,000 lbs. (7000 lbs. in 3 seconds with Vickers Pump). $78.00 value. Wt. 12 lbs. ..... postpaid **$19.50**

2. **Double action, 1½" bore, 27" stroke.** (Will lift 1760 lbs. in 2 seconds with Vickers Pump). Wt. 8 lbs. A $55.00 hydraulic cylinder value **for only**..... postpaid **$12.95**

3. **Double action, 2⅜" bore, 8" stroke.** (Will lift 4400 lbs. in one second with Vickers Pump). Will withstand 1500 P.S.I. against wall. A $65.00 value, available now at ..... postpaid **$14.50**

BRAND NEW
HYDRAULIC CONTROL VALVES
With built-in relief valve. Use them manually or automatically for single or double action cylinders. Inlet port 9/16", outlet port ¾", cylinder port ¾". Used on hydraulic gun charger. Complete with ILLUSTRATED instruction sheet. 6" x 3½" x 3¼". $5.95 postpaid.



Vickers MF6 Hydraulic Pump or Motor
Compact, powerful, rated 1,000 P.S.I., 507 cu. in. per revolution, 8 gal. per min. at 3750 r.p.m. Change rotation by reversing flow. Delivers up to 6 H.P. BRAND NEW, Wt. 4½ lbs. $60.00 value for **$14.95** postpaid.

GROBAN SUPPLY CO., Dept. NED-5
1507 South Michigan Avenue Chicago 5, Illinois

▲ Mention Item NED-3889 when writing ▲

New Literature—Continued

Emulsifiable Oil Detergent & Solvents

DuBois Co.—"Actusol and Solvent Information" is title of 12-page booklet which contains information on solvents most frequently used in metal cleaning and gives flash points of each when mixed with Actusol emulsifiable oil detergent. Additive is used to augment solvent power, emulsify insoluble oils and provide water rinsability in solvent cleaning operations.

▲ Mention Item NED-3890 when writing ▲

Wire Rope

Wire Rope Institute — 119-page illustrated catalog "Wire Rope" contains information on selecting, buying and using wire rope along with data on fittings, attachments, splicing and related subjects.

▲ Mention Item NED-3891 when writing ▲

Electrical Connecting Devices

Howard B. Jones Div., Cinch Mfg. Corp.—36-page illustrated catalog No. 16 presents specifications, illustrations and suggestions for inspection and installation of complete line of electrical connecting devices.

▲ Mention Item NED-3892 when writing ▲

Light Metals Fabrication

Colgate Mfg. Corp. — 20-page illustrated brochure "Points to Check in Selecting a Sheet Metal Fabricator Specializing in Aluminum, Magnesium and Stainless Steel" gives details of extensive designing, toolmaking and manufacturing facilities available.

▲ Mention Item NED-3893 when writing ▲

Photographic Processing Equipment

Oscar Fisher Co.—24-page illustrated catalog shows and describes photographic processing sinks, temperature controls, anhydrator, chemical storage and mixing tanks, heating and refrigeration equipment and film transport system.

▲ Mention Item NED-3894 when writing ▲

Armor Rods

Preformed Line Products Co.—Armor rods which permit armoring conductors in suspension clamps at towers, at angle construction and at dead ends without special tools or accessories are described in 24-page illustrated booklet "Preformed Armor Rods."

▲ Mention Item NED-3895 when writing ▲

Heavy-Duty Die Handling Trucks

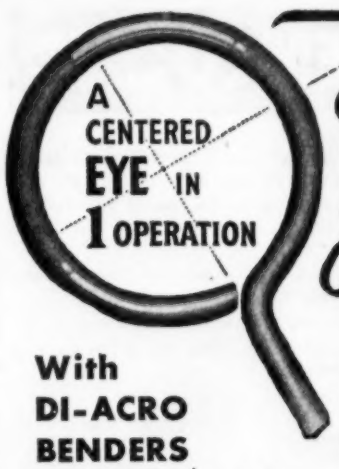
Elwell-Parker Electric Co.—"Industrial Logistics in Metal Stamping & Forging Plants" is title of 10-page booklet showing how trucks ranging from 2000 to 54,000-pound carrying capacity effectively move dies in and out of storage departments, place them in operating position on press beds, or interchange them.

▲ Mention Item NED-3896 when writing ▲

Hooks, Tongs, Grips & Slings

Downs Crane & Hoist Co.—Bulletin No. 200 contains 16 pages of information and photographs of hooks, tongs, grips and slings for safe and fast handling of steel sheets and plates, rails, pipe, barrels, kegs, castings, boxes, baled material and similar heavy loads.

▲ Mention Item NED-3897 when writing ▲



Precision CENTERED EYE *Bending*

With DI-ACRO BENDERS

DI-ACRO Precision Bending is accurate to .001" for duplicated parts. DI-ACRO Benders bend angle, channel, rod, tubing, wire, moulding, strip stock, etc. Machines are easily adjustable for simple, compound and reverse bends of varying radii.

The DI-ACRO Bender makes perfectly centered eyes from rod or strip stock at high hourly production rates. Both eye and centering bend are formed with one operation. Any size eye may be formed within capacity of bender and ductile limits of material.

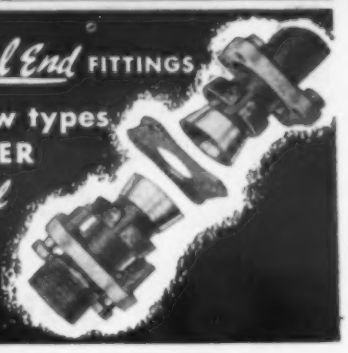
DI-ACRO Bender No. 1
Forming radius 2" approx Capacity 1/12" round cold rolled steel bar or equivalent. Also Benders No. 2 and 3 with larger capacities

Send for CATALOG
"DIE-LESS" DUPLICATING showing many kinds of "Die-less" duplicating produced with DI-ACRO Benders, Brakes and Shears.
Pronounced "DIE-ACK-RO"

DI-ACRO PRECISION MACHINES DIE-LESS DUPLICATING
O'NEIL-IRWIN MFG. CO.
354 8TH AVE., LAKE CITY, MINNESOTA

▲ Mention Item NED-3898 when writing ▲

FLANGED TYPE *Conical End* FITTINGS
—one of the 3 new types of TRI-CLOVER *Stainless Steel* FITTINGS for light gauge O. D. TUBING



. . . fabricated from stainless steel type 316 for use with commercial tolerance light gauge tubing having outside diameters from 1" thru 10". Easily assembled with lightweight, high strength couplings, which provide an extremely compact, flush, leak-tight union for working pressures up to 250 psi. Complete line of ells, tees, crosses, adapters, etc.

See your TRI-CLOVER Jobber or write:

Tri-Clover MACHINE CO.
Kenosha, Wisconsin

TRIALLOY AND STAINLESS STEEL SANITARY FITTINGS, VALVES, PUMPS, TUBING, SPECIALTIES
TRI-CLOVER
FABRICATED STAINLESS STEEL INDUSTRIAL FITTINGS AND INDUSTRIAL PUMPS
THE *Complete* LINE

▲ Mention Item NED-3899 when writing ▲

BEST BUYS

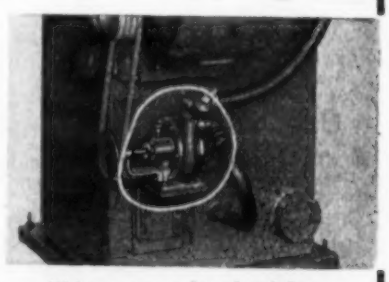
FOR PRECISION-QUALITY, PERFORMANCE AND ECONOMY OF OPERATION

"FULFLO" TRADE MARK REG. U. S. PAT. OFF.
CENTRIFUGAL COOLANT PUMPS

A lot to claim? Yes! But there's a lot to look forward to when you install these precision-designed, engineered and built coolant pumps.

America's leading industries are users . . . and in their plants FULFLO COOLANT PUMPS do a real job . . . cooling where cooling is needed . . . installed quickly . . . saving money every day.

Pipe sizes ⅜" to 1½". Motor . . . direct or belt drive.

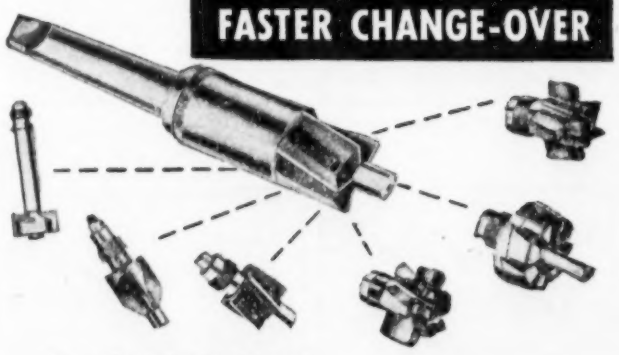


Write on your letterhead for FULFLO MECHANICAL DATA BOOK

THE FULFLO Specialties Co., Inc.
BLANCHESTER, OHIO

▲ Mention Item NED-3900 when writing ▲

FOR FASTER WORK... FASTER CHANGE-OVER



Specify CONTINENTAL Interchangeable Counterbores

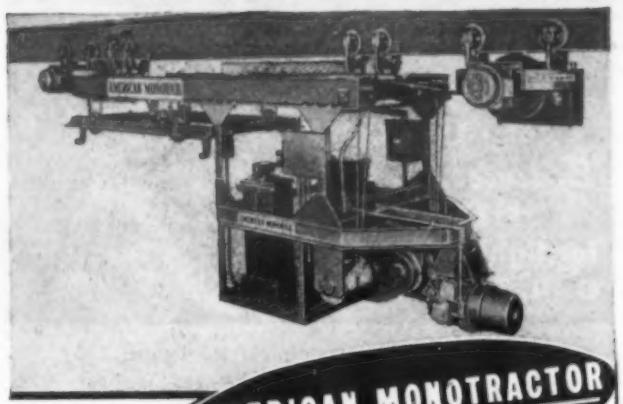
You can reduce your tool cost, improve accuracy, and increase production with the Continental complete line of standard interchangeable cutting tools. Cutters have a balanced, indestructible drive—originated by Continental—that will not stick, will not break, and is hand-detachable. No tools are needed.

Continental Interchangeable Counterbores are available in a choice of three sets. Set No. 1 (illustrated), for the small shop, includes cutters up to 1 1/16" diameter, with two holders.

CONTINENTAL TOOL WORKS
DIVISION OF EX-CELL-O CORPORATION
DETROIT 6, MICHIGAN

40—31 CTW

▲ Mention Item NED-3901 when writing ▲



AMERICAN MONOTRACTOR

Saves Time and Labor at J. & L. Wire Rope Division

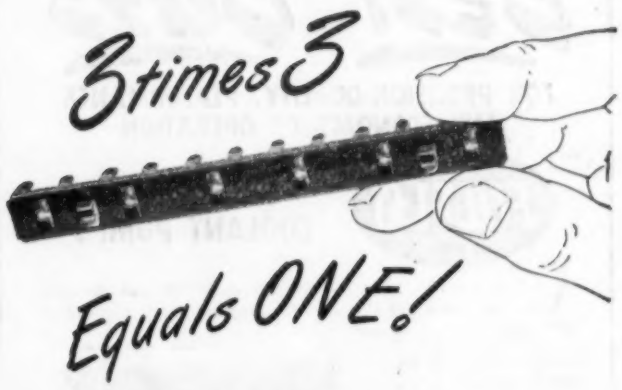
This American MonoRail Overhead Handling System has reduced labor requirements over 50% for J. & L. Wire Rope Division. Injuries have been almost eliminated and production and quality greatly increased.

Let an American MonoRail engineer tell you how overhead handling pays and saves.

THE AMERICAN MONORAIL COMPANY
13116 Athens Avenue • Cleveland 7, Ohio

▲ Mention Item NED-3902 when writing ▲

Where



One part to install instead of nine!

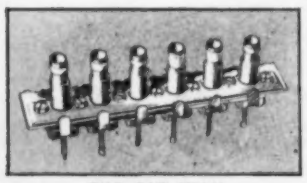
You discover a new kind of "arithmetic" . . . and new savings in assembly costs when you use SPEED NUTS*.

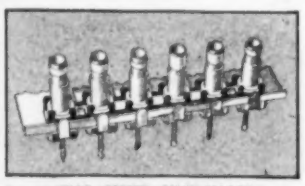
Here's a typical example of SPEED NUT "arithmetic": The specially-designed SPEED NUT fastener shown above, used in the assembly of radio coil forms, replaced nine separate parts. Also eliminated were extra punching operations and the driving of six screws.

The savings resulting from SPEED NUT applications like this can be enormous. Every one of the 4000 shapes and sizes of SPEED NUTS is designed to simplify, speed up, and improve assembly procedures.

Chances are these SPEED NUT advantages can be profitably used in the assembly of your product. Tinnerman engineers can provide the answer in a thorough fastening analysis. Send for details—and your copy of the latest bulletin on the SPEED NUT brand of fasteners. TINNERMAN PRODUCTS, INC., 2038 Fulton Road, Cleveland 13, Ohio.

In Canada: Dominion Fasteners Limited, Hamilton
In England: Simmonds Aerocessories, Ltd., Treforest
In France: Aerocessoires Simmonds, S.A., Paris


THE OLD WAY


THE *SPEED NUT* WAY

TINNERMAN
Speed Nuts
® Trade Mark Reg. U. S. Pat. Off.

Fastest thing in Fastenings

MORE THAN 4000 SHAPES AND SIZES

▲ Mention Item NED-3903 when writing ▲

New Literature—Continued

Piping Working Pressures

Tube Turns, Inc.—"Allowable Working Pressures", enlarged edition, gives allowable working pressures for line of welding fittings in gas and air piping, oil piping within and outside refinery limits and district heating piping. Also covered are plant process and hydraulic machinery piping.

▲ Mention Item NED-3904 when writing ▲

Stainless Steel Piping

Tube Turns, Inc.—Illustrated booklet "Stainless Steel Piping—Why and Where to Use It" by J. D. Mattimore discusses reasons for using stainless steel piping, various types, standardization of pipe and fittings, selection of pipe joints and fabrication by welding.

▲ Mention Item NED-3905 when writing ▲

Ball & Roller Bearings

Gwilliam Co.—16-page illustrated catalog No. 24 describes and lists sizes, loads and prices of roller thrust, ball thrust, step, journal roller, industrial roller and special bearings.

▲ Mention Item NED-3906 when writing ▲

Drinking Water Coolers

Drinking Water Cooler Manufacturers Association—28-page illustrated booklet entitled "The Water Cooler Story" discusses importance of drinking water and various types of coolers available. Advice on choosing right type and number of coolers to meet requirements and suggestions on proper installation are included.

▲ Mention Item NED-3907 when writing ▲

Thermocouple Wires

General Electric Co.—Two booklets contain data on line of high accuracy thermocouple wires for measurement of temperatures in industrial processes and laboratories. Bulletin GEA-4881 covers application, selection, accuracy and prices of thermocouple materials; and booklet GET-1415 gives output characteristics.

▲ Mention Item NED-3908 when writing ▲

Hoists, Cranes & Accessories

Harrington Co.—108-page illustrated catalog P is composite of bulletins presenting facts on chain, screw, differential, trolley, double hook and electric hoists; winches; track; cranes and various accessories.

▲ Mention Item NED-3909 when writing ▲

Adhesives & Coatings

Minnesota Mining & Mfg. Co.—Entitled "3M Adhesives in Industry," 28-page illustrated brochure depicts case histories involving bonding plywood to metal and vinyl sheeting to wood, sealing operations, and applying protective and anticorrosion coatings to metal and similar operations. Data are included to aid in selection of proper adhesives, sealers and coatings for particular applications.

▲ Mention Item NED-3910 when writing ▲

Folding Furniture

Louis Rastetter & Sons Co.—"Fine Furniture That Folds" is 10-page illustrated booklet describing line of magnesium or wood folding tables and chairs. Seven inserts show and present data on various types of chairs.

▲ Mention Item NED-3911 when writing ▲

AVAILABLE NOW **VEMCO** DRAFTING MACHINES

THESE advanced VEMCO Drafting Machines, available at your dealer NOW for immediate delivery, incorporate four outstanding features—

1. VEMCO'S exclusive *articulated arms* permit raising the drafting head—even over large objects on the board—yet keep the scales always flat.
2. Simple tightening device produces proper hand tension. Streamlined guards are installed on bands to keep out dust and dirt.
3. Convenient thumb-action indexing for each 15° in entire circle.
4. All VEMCO machines are finished in a striking blue-green metallic color—to minimize eye strain, minimize dust and add attractive color to your entire drawing board.

Ask your VEMCO dealer for a demonstration today or write us for catalog of VEMCO drafting machines and drawing instruments.

V. & E. MANUFACTURING CO.
PASADENA 20, CALIF.

▲ Mention Item NED-3912 when writing ▲

MANY INDUSTRIAL **ROLL** PROBLEMS are solved by using

SHAF-TITE ROLLS

Many patented constructions provide strongest possible shaft setting. Your choice of many different types and materials—wood, rubber, iron, brass, stainless steel, plastic, etc. Whatever your roll problem, put it up to

RODNEY HUNT

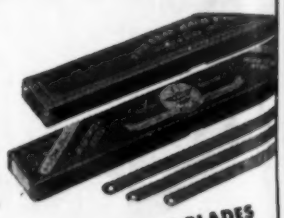
SEND FOR CATALOG TODAY!
Industrial Roll Division
RODNEY HUNT MACHINE CO.
73 Maple Street, Orange, Mass.

▲ Mention Item NED-3913 when writing ▲

Use the right blade

STAR MAKES IT!

Star makes blades for cutting everything a hack saw or band saw can cut—a *complete* line. That's why your Star supplier can tell you—quickly, expertly—what Star Blade will do your job best!



Free Booklet of Hack Saw Hints. *Specifications, tips on use, prices. Free from Star suppliers.*

★ HAND BLADES
STAR
★ POWER BLADES

★ BAND SAWS (including skip-tooth) (metal and wood cutting)

★ FRAMES

CLEMSON
CLEMSON BROS., Inc. Middletown, N.Y.

▲ Mention Item NED-3914 when writing ▲

JUST ONE OUT OF HUNDREDS

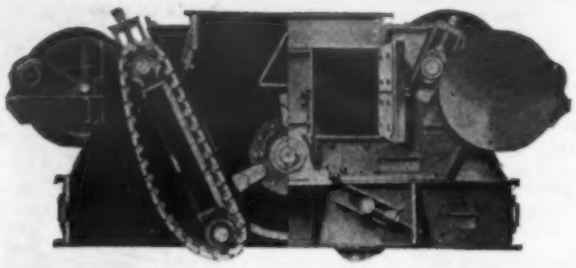
That's right—Blaw-Knox Clamshell Buckets come in hundreds of types and sizes. Catalog No. 2076 makes it easy for you to specify exactly the right bucket for any job—any crane capacity . . . Send for it today.

BLAW-KNOX DIVISION
of Blaw-Knox Co.
2068 Farmers Bank Bldg., Pittsburgh, Pa.

BLAW-KNOX *Clamshell* **BUCKETS**

▲ Mention Item NED-3915 when writing ▲

SWING HAMMER CRUSHERS with TRAVELING BREAKER PLATE



Designed for wet, sticky clay, ores, limestone, etc. Traveling breaker plates at each end individually driven through gear head motors—ARE REVERSIBLE. Material cannot build up nor clog the machine. Possible to run one size product on one side—another size on other by simply reversing rotor. A veritable "MUD HOG" weighing approximately 60,000 pounds—will take feed approximately 40" square by 18" thick.

Send for Bulletin

JEFFREY

ESTABLISHED 1877

952-99 N. Fourth St., Columbus 16, Ohio

Mention Item NED-3916 when writing

DETECTO SCALES

There's a precision-accurate Detecto Scale for your specific weighing and counting need. The Detecto helps increase production, yet assures you maximum accuracy by making slightest weight discrepancies immediately visible.

DETECTO-GRAM RATIO COUNTING SCALE

Another Detecto-Gram Scale to speed counting operations. Model #1743 has a special counting tray attached to the beam for use when counting in odd amounts.

Write for Catalogue

DETECTO · SCALES · INC.

MAKERS OF FINE SCALES SINCE 1900

505 MAIN STREET • BROOKLYN 1, N. Y.

SCALE ENGINEERS IN ALL PRINCIPAL CITIES

Mention Item NED-3917 when writing

BARBER-COLMAN

PACKAGED, ZONE CONTROL SYSTEMS

Zone-pac

Each ZONE-PAC box contains: (1) An attractively styled Room Thermostat with clear-reading thermometer and finished in champagne gold; (2) A Barcol Electric Motor-Operated Valve — size determined by Set Number — that is tight-closing, rugged, and reliable; (3) A heavy-duty, industrial type Transformer; (4) Fuse block and fuse; and (5) Complete wiring and installation instructions. The thermostat is of the heat-anticipation type which minimizes over-run caused by heating system lag. The Valve is single-seat with brass body, adaptable to all systems using steam, vapor, or hot water from any type of boiler or central station supply.

Write for Circular 72901

BARBER-COLMAN COMPANY

1206 ROCK STREET • ROCKFORD, ILLINOIS

Mention Item NED-3918 when writing

New Literature—Continued

Electronic Equipment Housings

Par-Metal Products Corp.—Complete description of electronic equipment cabinets, chassis, panels, racks and accessories is given in 28-page illustrated catalog No. 48. These metal housings are available in variety of sizes, mounting hole spacings and finishes.

Mention Item NED-3919 when writing

Stiffness Testing Machines

Tinius Olsen Testing Machine Co.—Factual data are given in 16-page illustrated bulletin No. 35 on various types of tests and applications possible through use of line of stiffness testing machines. Procedure for production and research testing is presented along with explanatory charts and useful formulas.

Mention Item NED-3920 when writing

Flexible Metal Tubing

Titeflex, Inc.—Illustrated folder on flexible Monel tubing discusses corrosion resisting characteristics of this tubing which is strong and tough and can be used at temperatures up to 800 F.

Mention Item NED-3921 when writing

Industrial Trucks & Tractors

Clark Equipment Co., Tructractor Div.—Gas and electric battery-powered fork trucks and industrial towing tractors are depicted and described in 40-page catalog. Among trucks featured are Pul-Pac which handles unit loads based on sheets of corrugated paper, fiber board or similar material; and Hi-Lo-Stack with high tier-low clearance.

Mention Item NED-3922 when writing

Aluminum Paints

Aluminum Industries, Inc.—Illustrated 24-page manual on Permite ready-mixed aluminum paints explains how to obtain best results with paint on wet walls, wood, metal, brick, concrete, heated surfaces, roofs and equipment.

Mention Item NED-3923 when writing

Bronze Welding Electrodes

Ampco Metal, Inc.—24-page illustrated bulletin No. W-17 discusses welding technique and procedures using bronze electrodes. Weldability chart shows diverse types of applications with recommendations as to which electrode to use in each case.

Mention Item NED-3924 when writing

Ball Bearing Pillow Blocks

Ahlberg Bearing Co.—"Economy Twins" is title of 4-page illustrated folder on prelubricated ball bearing pillow blocks for light duty applications and synthetic rubber insulated type for light duty air conditioning and ventilating equipment.

Mention Item NED-3925 when writing

Materials Handling Equipment

Mercury Mfg. Co.—52-page illustrated catalog No. 7-11 gives complete information on fork and lift trucks, tractors and trailers, as well as fork truck Trackless Train system of materials handling.

Mention Item NED-3926 when writing

"1001" Styles of Industrial Gloves to Save Workers' Hands

Suit the glove to the job . . . to cut your costs, step up production

Steel ribbons, horizontally placed, reinforce all wearing surfaces of this rugged Olympic chrome leather gauntlet (No. 330C). Special palm patch gives added protection without loss of flexibility . . . thumb reinforced with patch strap . . . 2" cuff protects wrist . . . glove entirely sewn with steel thread. These features, typical of the outstanding Olympic glove line, produce long-wearing qualities at low cost. Remember—there's an Olympic glove for every job!

FREE : Send for Illustrated Catalog of Safety Work Gloves, Finger Protectors and Safety Apparel.

OLYMPIC GLOVE COMPANY INC.

95 MADISON AVE., DEPT. 10 NEW YORK 16, N. Y.

Mention Item NED-3927 when writing

Get More Production Per Man With CURTIS AIR HOISTS

THE SPEED, ease of handling and accurate control of Curtis air-powered Hoists and Cylinders step up production.

Wherever a lifting, pulling or pushing operation is involved, CURTIS Air Hoists save time and labor; cut load-handling costs.

Curtis Air Hoists provide:

- Low original cost
- One-man operation
- Immunity to abuse by overloading
- Capacities to 10 tons
- Light weight
- Lowest operating expense
- Finger-tip control
- Pendant, bracketed or rope-compounded types

Send for Bulletin C-7 on Curtis Air Hoists, Air Cylinders and Air Compressors.

CURTIS PNEUMATIC MACHINERY DIVISION

of Curtis Manufacturing Company

1979 Kienlen Avenue • St. Louis 20, Missouri

94 Years of Successful Manufacturing

Mention Item NED-3928 when writing

Here's the New AIR PRESSURE REGULATOR

—That Pays for Itself!

HANNIFIN **AIR WARDEN** REGULATOR

SPEEDS UP PRODUCTION! You get fast action with Hannifin's new "Air Warden" regulator. No slow build-up to desired pressure. Saves time; helps do work faster.

SAVES AIR! Easy to back off air pressure without exhausting control valve. Instant downward pressure adjustment merely by turning control knob.

EXACT PRESSURE CONTROL. Accurate, sensitive; secondary pressure setting repeats exactly regardless of fluctuating flow conditions. For use on primary air pressures up to 150 p. s. i. Maintains any desired secondary pressure from 5 to 125 p. s. i. even under dead end conditions.

FINE QUALITY. Small, compact, and moderately priced, but unexcelled for precision construction. Nylon valve seats. Instrument type control knob and fine threaded adjusting screw. All non-corrosive materials. Built-in fine mesh bronze strainer. Sizes ⅜" and ½".

ENGINEERING RECOMMENDATIONS. If you use or if you build air operated equipment, ask for Hannifin engineering recommendations. New bulletin No. NP-1005-R on request.

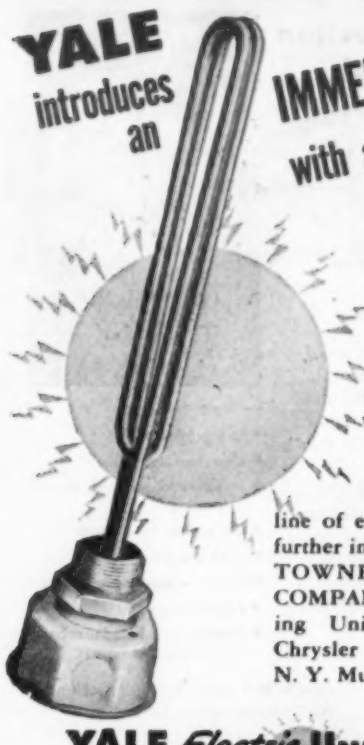
HANNIFIN CORPORATION

1101 So. Kilbourn Ave., Chicago 24, Ill.

AIR CYLINDERS • HYDRAULIC CYLINDERS • HYDRAULIC PRESSES
PNEUMATIC PRESSES • HYDRAULIC RIVETERS • AIR CONTROL VALVES

Mention Item NED-3929 when writing

YALE introduces an IMMERSION HEATER with a new twist



Cut costs with this *new* YALE Rod Type Immersion Heating Unit. The YALE designed single element construction gives the same amount of heat in a given space as is achieved with the usual double heating unit!

Prompt shipment on Rod Type Heating Units —first of a *complete* YALE line of electric heaters. Send for further information. THE YALE & TOWNE MANUFACTURING COMPANY, YALE *Electric* Heating Unit Sales, Room 1040 Chrysler Building, New York 17, N. Y. Murray Hill 9-6700.

YALE *Electric* UNIFORM HEAT

THE BRIGHT SPOT IN ELECTRIC HEATING

TRADE YALE MARK Makers of the famous YALE lines of Locks, Door Closers, Pumps, Hoists, Industrial Trucks and Scales.

▲ Mention Item NED-3930 when writing ▲

HALLOWELL

Steel Collars

Pat'd and Pat's Pend.

"Hallowell" Solid Steel Collars, attractively proportioned throughout, are precision-machined so faces run perfectly true . . . are also highly polished all over . . . yet they cost less than common cast iron collars. 3" bore and smaller are made from Solid Bar Stock and fitted with the famous "Unbrako" Knurled Point Self-Locking Socket Set Screw . . . a set screw that, once tightened, holds and stays tight to make sure the collar won't shift on the shaft. "Hallowell" . . .a "buy word" in shaft collars . . . available in a full range of sizes.

IMMEDIATE DELIVERY

Ask for the name and address of your nearest "Unbrako" and "Hallowell" Industrial Distributor.

OVER 45 YEARS IN BUSINESS

STANDARD PRESSED STEEL CO.

JENKINTOWN, PA. BOX 581

BOSTON • CHICAGO • DETROIT • INDIANAPOLIS • ST. LOUIS • SAN FRANCISCO

▲ Mention Item NED-3931 when writing ▲

Keep the CENTER

with *Anti-Scoring* LUBRICANT

ACTUAL tests prove that CMD Anti-Scoring Lubricant withstands pressures exceeding 50,000 pounds per square inch. Reduce operating costs—give your tools and equipment the best anti-scoring protection available—CMD Center Point Lubricants. Write for FREE SAMPLES and catalog!

CMD Helical Groove LATHE CENTER *(shown above)* has groove to carry oil right to point. Center lasts longer, stays cooler.

MAIL COUPON NOW!

CHICAGO MANUFACTURING AND DISTRIBUTING CO.
Dept. NED-5, 1928 West 46th Street, Chicago 9, Illinois

Without obligation please send us a free sample kit of one tube of CMD Center Point Lube and one tube of CMD Center Point Oil. Also, send Catalog describing CMD Helical Groove Centers.

NAME.....

FIRM NAME.....

ADDRESS.....

▲ Mention Item NED-3932 when writing ▲

New Literature—Continued

Wire & Cable

General Electric Co., Appliance & Merchandise Dept.—48-page illustrated wire and cable catalog lists thermoplastic, braided and leaded building wires; BX entrance, Braid X and PVX cables as well as complete line of Flamenol, Neoprene, rubber and braided cords and portables.

▲ Mention Item NED-3933 when writing ▲

Roller Chain Flexible Couplings

Chain Belt Co. — Baldwin-Rex roller chain flexible couplings are described in 8-page illustrated bulletin No. 48-6 which covers design, application, selection and prices. They are flexible, shock absorbing and easily installed and eliminate back lash when loads are changed, brakes applied or rotation is reversed.

▲ Mention Item NED-3934 when writing ▲

Building Wires

Okonite Co., Hazard Insulated Wire Works Div.—Complete engineering information on many types of wire and cable required by building industry is presented in illustrated bulletin No. H-408. Specifications for various insulations used are given together with recommendations for their application.

▲ Mention Item NED-3935 when writing ▲

Flexible Couplings

American Flexible Coupling Co.—24-page illustrated booklet entitled "Relief from Bearing Wear Grief" explains causes of bearing failure, shaft failure, damaged equipment and downtime resulting from improper coupling of equipment; defines function of flexible coupling; and demonstrates its importance.

▲ Mention Item NED-3936 when writing ▲

Silicone Rubber

Dow Corning Corp.—16-page illustrated booklet "Silastic Facts No. 5" gives physical properties of six Silastic silicone rubber pastes and six molding and extruding stocks. Usefulness of compound as gasketing material and as electrical insulating material is indicated by tables and graphs.

▲ Mention Item NED-3937 when writing ▲

Snap-Action Switches

Micro Switch Div., First Industrial Corp.—4-page illustrated folder "Micro Tips" is first issue of regular publication describing how snap-action switches have been applied to equipment to protect operators, machines and materials; to make machines automatic and to increase production.

▲ Mention Item NED-3938 when writing ▲

Process Compressors

Ingersoll-Rand Co.—Variety of sizes and types of air and gas compressors available for chemical, process and petroleum industries is outlined in 8-page illustrated bulletin No. 3132. Basic types of compressors and blowers in ½ to 30,000-horsepower sizes which can be modified for practically any pressure and any gas are shown.

▲ Mention Item NED-3939 when writing ▲

Hydraulic & Mechanical Presses

Verson Allsteel Press Co.—Comprehensive analysis of hydraulic and mechanical press selection is given in 20-page illustrated bulletin No. G-47. Covered are single, double and triple action; open back inclinable; post type hydraulic; knuckle joint; forging; high speed; and fully automatic transfer feed presses.

▲ Mention Item NED-3940 when writing ▲

Boiler & Tank Equipment

Commercial Shearing & Stamping Co.—44-page illustrated catalog No. P1 presents data and prices on boiler and tank heads of dished and flanged types, manholes, stampings and fittings. Design formulas to aid in tank construction are included also.

▲ Mention Item NED-3941 when writing ▲

Industrial Steam Traps

W. H. Nicholson & Co.—12-page illustrated bulletin No. 1047 presents data on steam traps equipped with bellows of bronze, Monel or stainless steel with bodies in bronze, cast iron and cast steel construction in sizes from ¼-inch to 2 inches for all pressures from vacuum to 300 pounds per square inch.

▲ Mention Item NED-3942 when writing ▲

Metal Moldings

Loxit Moulding Co.—72-page illustrated catalog No. 3-48 shows and presents dimensions of wide variety of aluminum, steel and bronze moldings and accessories. Among these are snap-on moldings, T-sections, angles, channels, flat strips, tubing, caps, counterfacings, coves, stair nosings, and metal covered wood moldings.

▲ Mention Item NED-3943 when writing ▲

MERCOID

MERCURY SWITCHES

THE MOST IMPROVED TYPE IN MERCURY CONTACT SWITCH CONSTRUCTION. ●

Mercury switches bearing the registered trade mark name of "Mercoid" are not subject to open arcing, oxidation, corrosion, pitting or sticking of the contacting surfaces.

There are numerous applications where these switches have a definite advantage over the open contact type switches.

Mercoid switches are available to the trade in various designs, sizes and capacities.

Our engineers gladly offer their assistance in the adaptation of our switches to your switch problems.

MERCOID

SOLVES INDUSTRY'S AUTOMATIC CONTROL PROBLEMS

Designed to automatically regulate electrically operated equipment in accordance with changes in temperature, pressure, vacuum, fluid level or mechanical movement.

For further information see catalog No. 600

THE MERCOID CORPORATION

4227 West Belmont Avenue, Chicago 41, Illinois

MANUFACTURERS OF AUTOMATIC CONTROLS FOR HEATING, AIR CONDITIONING, REFRIGERATION AND NUMEROUS INDUSTRIAL APPLICATIONS. ALSO MERCOID BRAND MERCURY SWITCHES.

▲ Mention Item NED-3944 when writing ▲

NOW! NEW

Full of facts about Fiberglas* Insulating Materials

32 pages of illustrated "how-to-do-it" information on the application of Fiberglas Thermal Insulating Materials for all types of low-temperature structures. Use the handy coupon to write for your copy. Owens-Corning Fiberglas Corporation, Dept. 921, Toledo 1, Ohio. Branches in principal cities.

In Canada: Fiberglas Canada Ltd., Toronto, Ontario.

OWENS-CORNING FIBERGLAS LOW TEMPERATURE INSULATIONS

*Fiberglas is the trademark (Reg. U. S. Pat. Off.) for a variety of products made of or with glass fibers by Owens-Corning Fiberglas Corporation.

OWENS-CORNING FIBERGLAS CORPORATION, Dept. 921, Toledo 1, Ohio.

Please send me a copy of the 32-page booklet, "Insulation of Low-Temperature Structures".

Name_____ Title_____

Company_____

Street & Number_____

City_____ Zone_____ State_____

▲ Mention Item NED-3945 when writing ▲

Easiest Rolling!

Rolls Like a Baby Buggy!

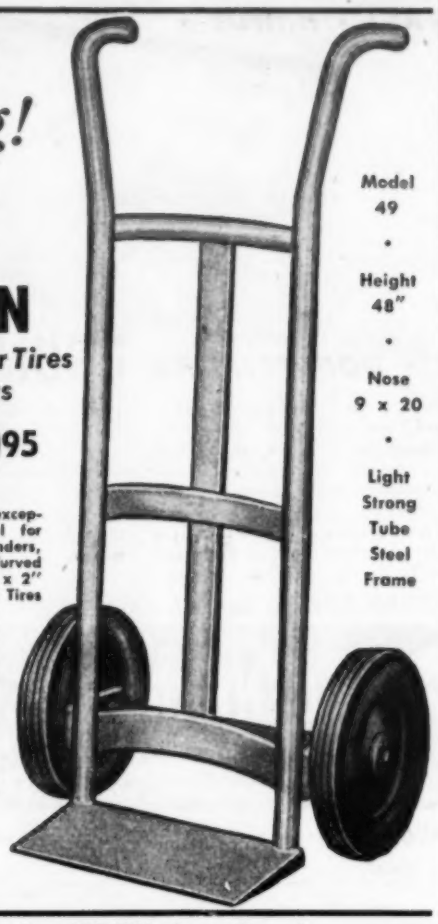
TRUCK BARGAIN

Finest 9" Rubber Tires Timken Bearings

ORDER MONDAY —GET IT FRIDAY! Handees—best known truck of its type on the market—offers new Model 49 at exceptionally low price. Ideal for cases, cartons, bags, cylinders, etc. Cap. 1000 lbs. Curved cross straps; ¾" axle. 9 x 2" Airlight Molded-on Rubber Tires save floors, make rolling easy. Timken Tapered roller bearings. Order by mail. Send back express collect if not highly pleased. **$19.95**

MODEL 49S. Same truck with quiet, resilient 10" x2.75 semi-pneumatic rubber tires, Hyatt bearings. **$29.95**

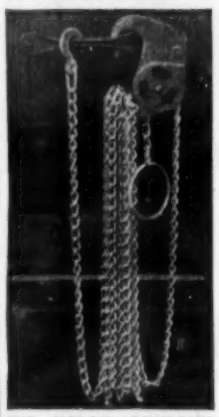
Order from **HANDEES CO.** Dept. NE-5 Bloomington, Ill.



Model 49 • Height 48" • Nose 9 x 20 • Light Strong Tube Steel Frame

▲ Mention Item NED-3946 when writing ▲

SAFER-FASTER-BETTER WAY TO OPEN BALKY BOX CAR DOORS!



MONARCH ONE MAN CAR DOOR OPENER

One man can open the most binding balky box car door with the Monarch Car Door Opener. Get greater safety . . . speed loading and unloading schedules . . . order an ample supply to fill your needs today!

• No strained muscles. No slips or falls. No broken arms, legs or mashed fingers. No fatalities. No time wasted. No "gangs" needed. No time loss.

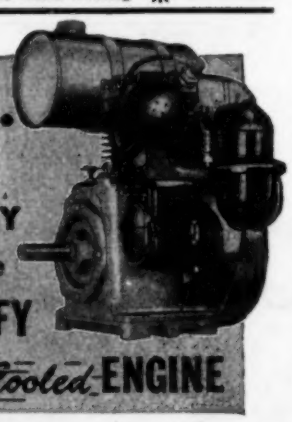
Write for free descriptive literature.

THE NOLAN COMPANY, 128 Pennsylvania St., Bowerston, O.
Formerly The Mining Safety Device Co.

▲ Mention Item NED-3947 when writing ▲

You Get . . .

HEAVY-DUTY SERVICEABILITY in a Small Engine WHEN YOU SPECIFY WISCONSIN Air-Cooled ENGINE



In designing power-operated equipment within a 2 to 4 hp. range . . . one of the vitally important considerations is to secure a power unit that can be depended upon for *heavy-duty serviceability.*

This is one of the predominant characteristics of the little Models AB and AK Wisconsin Air-Cooled Engines. Every detail of design and construction . . . from the Timken tapered roller bearing mounting of the crankshaft front and rear, to the mirror-honed cylinder . . . has been engineered for heavy-duty operation under rugged conditions. These engines are equipped with rotary type outside magneto with impulse coupling, assuring quick, easy starting in any weather, at any season.

Write for detailed specifications and other pertinent data. Wisconsin Air-Cooled Engines are available in 4-cycle single cylinder and V-type 4-cylinder models in a complete power range.

WISCONSIN MOTOR CORPORATION
World's Largest Builders of Heavy-Duty Air-Cooled Engines
MILWAUKEE 14, WISCONSIN

▲ Mention Item NED-3948 when writing ▲

New Literature—Continued

Welding & Cutting Equipment

K-G Welding & Cutting Co.—24-page illustrated catalog No. 48 shows and describes cutting and welding torches, tips, regulators, torch and regulator wrenches, complete outfits, and various accessories.

▲ Mention Item NED-3949 when writing ▲

Unit Type Dust Collectors

Aget-Detroit Co.—Dust collectors for stopping dusts and lint from grinding, polishing and buffing operations as well as vapor collectors to trap mist from thread grinders and centerless grinders are described and priced in 4-page illustrated bulletin No. 510.

▲ Mention Item NED-3950 when writing ▲

Embossed Metal Products

American Emblem Co.—56-page illustrated catalog K presents information on plant facilities, equipment and personnel and shows typical products. These include emblems, insignia, nameplates, badges, medals, ornaments, specialties, small subassemblies and complete assemblies.

▲ Mention Item NED-3951 when writing ▲

Vise Type Drill Table

Modern Machine Tool Co.—"The Modern Safety Drill Tables" is title of 8-page illustrated booklet describing device which combines drill table, vise, set of parallels and V-block in single unit that replaces round table on any drill press.

▲ Mention Item NED-3952 when writing ▲

Lubricating Devices & Systems

Wm. W. Nugent & Co.—Two illustrated bulletins Nos. 15 and 16 present information on telescopic oiling devices for reciprocating and revolving bearings; and sightfeed valves, sightflow fittings and compression union threadless pipe fittings, respectively.

▲ Mention Item NED-3953 when writing ▲

Industrial Lighting

Fostoria Pressed Steel Corp.—Two illustrated bulletins "Improved Lighting" and "Balanced Lighting" recommend lighting procedure, provide guide for footcandle levels, show various lighting applications and describe various types of lighting equipment.

▲ Mention Item NED-3954 when writing ▲

Self-locking Nut

Nylok Corp.—16-page engineering data booklet "Nylok Lock Nuts" outlines features of lock nut which is positive in action, can be reused indefinitely and incorporates Nylon locking element having such toughness and chemical resistance that it can be used under almost any condition.

▲ Mention Item NED-3955 when writing ▲

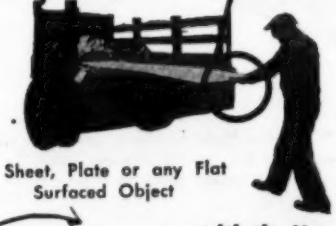
Plastics

Monsanto Chemical Co., Plastics Div.—20-page illustrated booklet entitled "What Monsanto Plastics Can Do for You" explains line of plastics in terms of physical properties, characteristics, fabricating methods, typical end uses and forms in which they are supplied.

▲ Mention Item NED-3956 when writing ▲

Convey

or *Remove*



A Sheet, Plate or any Flat Surfaced Object

with the New **MERRILL DUPLEX** Automatic Finger Grip.

It is only 3½" wide by 6" long, and weighs only 28 ounces. Everyone handling Sheets should have one in his hip pocket. It speeds up handling,—makes it easy.
Priced at $9.60 each. Ask your Jobber or Mill Supply Houses for them.

MERRILL Brothers
56-13 Arnold Avenue Maspeth, N. Y.

▲ Mention Item NED-3957 when writing ▲

it's KESTER for real soldering efficiency!

QUALITY—UNIFORMITY

Improve Performance and eliminate rejects by standardizing on Kester Cored Solders. It will pay dividends to use the best cored solder made.

Troubled with a difficult soldering operation? Kester has a cored solder that will fit your needs. Consult our engineers on any soldering problem. No obligation to you.

KESTER SOLDER COMPANY
4249 Wrightwood Ave., Chicago 39, Illinois
Factories Also at: Newark, New Jersey, Brantford, Canada

▲ Mention Item NED-3958 when writing ▲

HERE!

The new Jefferson SAF-T-LAG is a triple-action fuse that not only (1) protects wiring and equipment against short circuits but also (2) insures against motor burnouts due to single phasing of polyphase motors and (3) unnecessary blowing on harmless starting inrushes or overloads.

In Jefferson Saf-T-Lag Thermal Fuses a leaf type trigger spring is rigidly connected to one of the two solid copper elements while the other end, under tension in an upward direction, is held to the opposite copper element by means of solder having a melting point of 280° F.

Since the heat is absorbed until reaching the melting point of the thermal solder connection, which involves a longer heating interval, the result is a time-lag four to five times longer than usual.

On long, heavy overloads and on short circuits, the notched thin end fuse elements provide immediate protection by blowing in less than 1/10 of a second—before the thermal solder can melt.

The New Saf-T-Lag Thermal Fuse incorporates the experience, skill, and engineering of a half century of fuse making. Sold through Wholesalers.

JEFFERSON ELECTRIC COMPANY
BELLWOOD, ILLINOIS
In Canada: Canadian Jefferson Electric Co., Ltd. 384 Pape Ave., Toronto, Ont.

Write for New Fuse Booklet 482-ST which includes handy "Rating Chart"

JEFFERSON SAF-T-LAG *Thermal* FUSE

▲ Mention Item NED-3959 when writing ▲

SAVE TIME AND MONEY with the

CLECO HANDI-DRILL

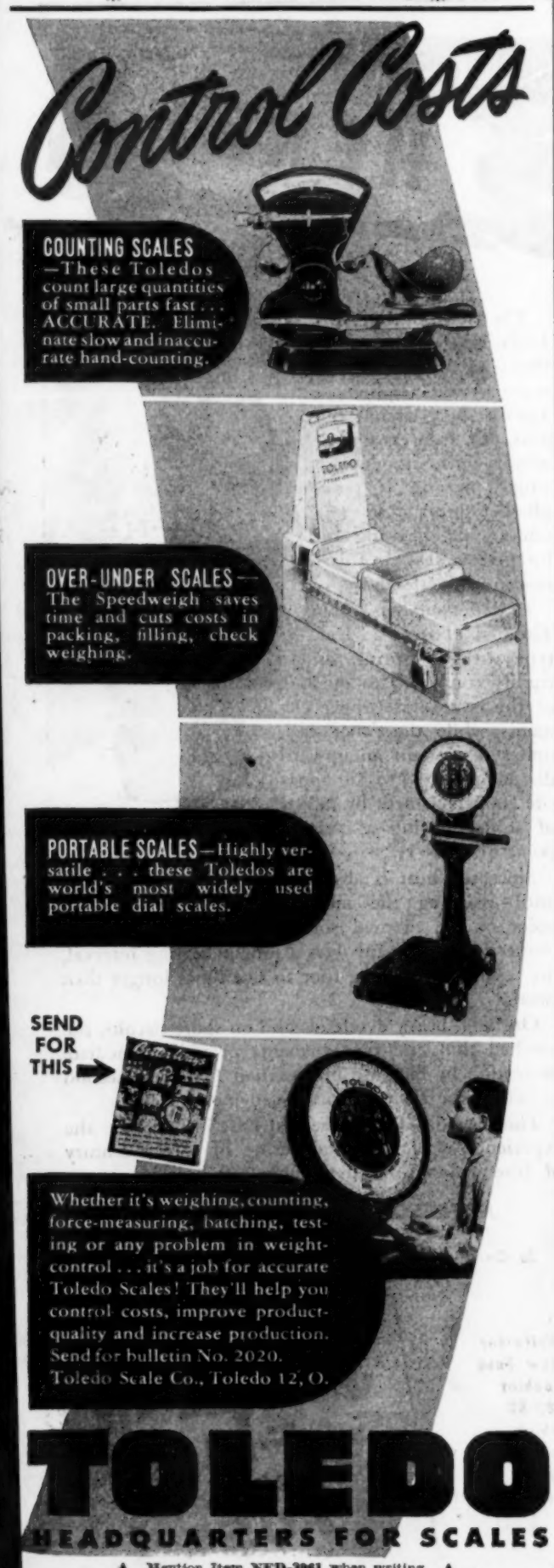
The Self-Rotating Rock Drill

ONE-HAND OPERATION • LIGHT IN WEIGHT (9 LBS.) • SIMPLE IN CONSTRUCTION • PRACTICALLY NO RECOIL • HITS AND ROTATES AT SAME TIME FOR FASTER PENETRATION • PATENTED SAFETY RETAINER PREVENTS ACCIDENTAL RELEASE OF TOOL FROM DRILL • CONVERTIBLE TO CHIPPING HAMMER BY REMOVAL OF ONLY ONE PART

CLECO DIVISION
of the REED ROLLER BIT COMPANY
P. O. Box 2119 Houston, Texas, U. S. A.

▲ Mention Item NED-3960 when writing ▲

Control Costs



COUNTING SCALES—These Toledos count large quantities of small parts fast . . . ACCURATE. Eliminate slow and inaccurate hand-counting.

OVER-UNDER SCALES—The Speedweigh saves time and cuts costs in packing, filling, check weighing.

PORTABLE SCALES—Highly versatile . . . these Toledos are world's most widely used portable dial scales.

SEND FOR THIS

Whether it's weighing, counting, force-measuring, batching, testing or any problem in weight-control . . . it's a job for accurate Toledo Scales! They'll help you control costs, improve product-quality and increase production. Send for bulletin No. 2020. Toledo Scale Co., Toledo 12, O.

TOLEDO
HEADQUARTERS FOR SCALES

▲ Mention Item NED-3961 when writing ▲

New Literature—Continued

Industrial Humidification

Walton Laboratories—16-page illustrated booklet "Industrial Humidification by Walton" explains how controlled humidity effectively increases production and minimizes waste in many industries and eliminates all hazards caused by static electricity. Typical humidifiers for installations requiring large and small quantities of vapor are shown.

▲ Mention Item NED-3962 when writing ▲

Carbide Tool Grinders

Hammond Machinery Builders, Inc.—12-page illustrated catalog No. 220 describes line of wet and dry carbide tool grinders, chip breaker tool grinders and diamond finishing tool grinders. Basic suggestions are given for obtaining best results and maximum economies from carbide tools.

▲ Mention Item NED-3963 when writing ▲

Insulating Firebrick

Armstrong Cork Co.—Two illustrated booklets "Armstrong's Insulating Firebrick and Refractory Cement" and "Engineering Problems That Have Been Solved with Armstrong's Insulating Firebrick" contain descriptions of various types of firebrick, their physical properties, charts of heat loss storage, and guide to application of brick.

▲ Mention Item NED-3964 when writing ▲

Electrical Instruments

Associated Research, Inc.—Technical information and engineering data relative to electrical insulation and ground resistance testing and insulation breakdown testing are contained in illustrated precision instruments catalog. Also shown are ohmmeters, ammeters, soil resistivity meters, limit bridges, transformers and tachometers.

▲ Mention Item NED-3965 when writing ▲

Cold-Heading Aluminum-Bronze

Ampco Metal, Inc.—Ampcoloy 49 aluminum-bronze cold-heading alloy is described fully in 4-page illustrated bulletin No. 88. Available as rod and wire, alloy combines economies of cold-working, advantages of aluminum-bronze and grain structure produced by extrusion process.

▲ Mention Item NED-3966 when writing ▲

Mailroom Equipment

Commercial Controls Corp.—Two illustrated bulletins Nos. SP-8533 and SP-8534 show and describe sorting racks, mailroom tables, utility cabinets, machine cabinets, mailbags and mailbag holders. Photo shows equipment arranged in correct sequence for rapid systematic preparation of outgoing mail.

▲ Mention Item NED-3967 when writing ▲

Cylindrical Roller Bearings

Rollway Bearing Co.—Steel cage type cylindrical roller bearings are fully described in 16-page illustrated catalog No. 847. In addition to selection and installation data, factors for operating speed and life expectation, shaft and inner race fits, housing and outer race fits, and shaft and housing diameters are tabulated.

▲ Mention Item NED-3968 when writing ▲

HYPREZ DIAMOND COMPOUND does the job Better!

". . . Die Mold finishing time reduced from 1½ hrs. to 15 minutes with Hyprez . . ." States Chicago Plastic Mold manufacturer.

Hyprez Diamond Compound works faster than other abrasives because:

• Elgin graded diamond is guaranteed.

• Diamond particles are smaller, do not scratch while cutting more rapidly.

A complete low cost, foolproof system.

Distributed in Canada by Precise Gauge & Indicator Co. 60 Front Street West, Toronto, 1, Ontario, Canada."

Write For Details

ELGIN
SAPPHIRE PRODUCTS DIVISION
ELGIN NATIONAL WATCH COMPANY
932 BENTON STREET — AURORA, ILLINOIS

▲ Mention Item NED-3969 when writing ▲

FAST • HANDY

NON-PRIMING DRUM PUMP

Here is an economical, quick and sensible way to empty drums, barrels and tanks without mess, splash or accident-provoking tilting.

And this pump stops evaporation losses. A lift of the handle drains pump and automatically seals contents inside.

Requires no priming, has no leather or rotating parts to wear out. Sturdily constructed for long, trouble-free service.

Price includes nozzle, 8 foot hose with static wire, end fitting and special suction pipe for a ¾" opening. $14.25

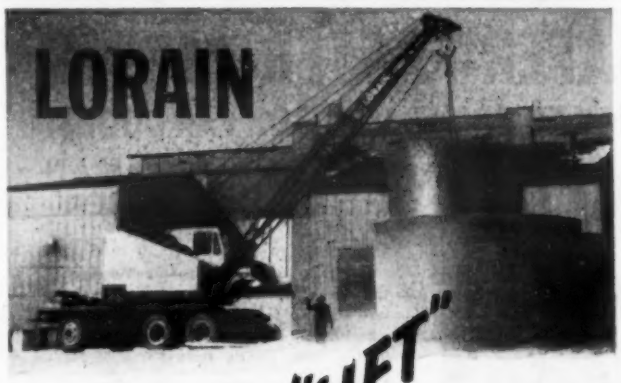
ORDER TODAY DIRECT FROM:

A DEPENDABLE GUIDE TO SAFETY
GENERAL SCIENTIFIC EQUIPMENT COMPANY
TESTED INDUSTRIAL SAFETY PRODUCTS

2702 W. Huntingdon Street • Phila. 32, Pa.

RESPIRATORS • PUMPS • GOGGLES • SHIELDS • GLOVES • APRONS • HELMETS

▲ Mention Item NED-3970 when writing ▲



gives that new "LIFT" to material handling jobs

LOADS are heavy at the Lukenweld Division of the Lukens Steel Co., Coatesville, Pa. This paper mill machine cylinder weighs 4700 lbs., but it is just a leisurely lift for this Lorain TL-20 Self-Propelled Crane.

Using interchangeable hook block and electric magnet, this single-engine, rubber-tire mounted TL-20 brings economical "cranepower" to every part of the Lukens operation. It is one-man operated, travels at speeds up to 7 M.P.H.; may be equipped with 15 different crane attachments.

Why not give your material handling operations that new "lift" through "cranepower." For information on Lorain crawler and rubber-tire mounted cranes, call or write your local Thew-Lorain distributor.

The Thew Shovel Company
LORAIN, OHIO

▲ Mention Item NED-3971 when writing ▲

Ampco Metal
makes tumbler-barrel costs tumble

Using Ampco rolled sheet cuts maintenance and replacements

Replacement costs were high, until manufacturers switched to tumbling barrels fabricated with Ampco-8 sheet. This durable, corrosion-resistant alloy solved their problem in jig-time.

Hundreds of companies use durable Ampco Metal and Ampcoloys in their own products as selling features — and in their production equipment as insurance against heavy maintenance and replacement costs on parts subject to wear and corrosion.

Call in your nearby Ampco engineer for cost-cutting suggestions. Write for complete information on Ampco castings, extrusions, forgings, sheet, and fabrication. Cut costs with Ampco products.

Ampco Metal, Inc.
Dept. NE-5 • Milwaukee 4, Wis.

AMPCO ®

Field offices in principal cities

▲ Mention Item NED-3972 when writing ▲

WANT A METAL LABELING TABLE GUMMER GLUE THAT REALLY WORKS?

The new PAISLEY Table Gummer Glue No. 1707, made from synthetic resins and latex, permanently adheres ungummed paper labels and other porous materials to a wide variety of metals and surface finishes. Ideal for fastening instruction labels, circuit diagrams, brand labels, etc., to plain, lacquered, painted tin and metal surfaces ..also to glass, many plastics, as well as to porous surfaces. Useful in numerous combining operations, cork to metal, felt to cardboard, fabrics to metal, glass, ceramics, etc. Typical field uses include labeling of refrigerators, household appliances, radio chassis, tin cans, drums, over printed areas of cartons and displays.

TRIAL QUART $2.00. Economical prices in larger packings. Order today, or send for free Laboratory Report and Adhesive Operation Data Sheet.

Paisley SCIENTIFIC ADHESIVE SERVICE

PAISLEY PRODUCTS INCORPORATED
Manufacturers of Glues, Pastes, Resin Adhesives, Cements and Related Chemical Products
1770 CANALPORT AVE., CHICAGO 16, ILL. ★ 630 W. 51st STREET, NEW YORK 19, N. Y.

▲ Mention Item NED-3973 when writing ▲

CUT SHOP COSTS WITH BLUE HERON *Portable* CRANES

Enable one man to lift and move with ease up to 2 tons

1000 lbs. Capacity $140
2000 lbs. Capacity $193.50
1000 lbs. Capacity Special Garage Model $207.50
4000 lbs. Capacity $370

Blue Heron Portable Cranes are invaluable as the main crane in small shops, an auxiliary in large shops. Readily pass through doors and along shop aisles. Large rollers for easy moving. Adjustable in height; reach into places where manual lifting is not possible. Welded steel construction, cut steel gears, generous overload safety factor. Write for illustrated folder and name of nearest supplier.

CAM TOOL CO., INC. 288-21st Street Oakland 12, Calif., U.S.A.

▲ Mention Item NED-3974 when writing ▲

THIS ISOMODE* PAD ABSORBS VIBRATION

...whether your machines weigh POUNDS or TONS

You load the pad 50 lbs. per sq. inch—a heavier machine simply gets more area. It's as simple as all that, and yet you make a striking improvement in your machine. For these 5/16" thick Isomode Pads absorb shocks and vibration normally transmitted from base to floor. They make a machine quieter, more pleasant to work with, longer lasting. You get unusual efficiency from Isomode Pads because of their construction. The unique arrangement of the ribs affords maximum possible resiliency from the Neoprene—which means substantial softness even for light loadings! So they cushion motions in all directions. They're stable, resist oil and water. Send for bulletin No. 405 which gives more details.

*Trade Mark Reg. U.S. Pat. Off.

THE MB MANUFACTURING COMPANY, INC.
1066 State St., New Haven 11, Conn.

VIBRATION DIVISION

▲ Mention Item NED-3975 when writing ▲

New Literature—Continued

Welding Fittings & Flanges

Tube Turns, Inc.—20-page illustrated supplement to catalog and data book No. 111 is devoted to specifications covering items recently added to line of welding fittings and flanges for industrial piping.

▲ Mention Item NED-3976 when writing ▲

Stainless Steels

Alloy Metal Wire Co.—36-page illustrated stainless steel handbook contains extensive technical and application data compiled in graphs, charts, tables and comparative form on variety of types of stainless steels. Qualities, uses and properties are discussed.

▲ Mention Item NED-3977 when writing ▲

Weldments

United Welding Co.—"The United Album of Recent Weldments" is title of 12-page illustrated brochure showing welded slides, crowns, adjusting screws and frames for several presses; gear blanks; engine frames; and other typical examples of welded projects.

▲ Mention Item NED-3978 when writing ▲

Compressed Gases & Regulators

Matheson Co.—Prices and other data are listed on 55 rare and common types of compressed gases in 6-page illustrated folder "Compressed Gases and Gas Regulators." Line of automatic regulators and nonautomatic controls for all gases are shown, described and priced.

▲ Mention Item NED-3979 when writing ▲

Heat Treated Nickel Alloy Steels

International Nickel Co.—26-page illustrated publication "The Properties of Heat Treated Wrought Nickel Alloy Steels" revised edition contains new data largely in chart form on properties of commonly used engineering steels containing up to 5 per cent nickel. Detailed information on heat treatment methods is given along with suggested applications.

▲ Mention Item NED-3980 when writing ▲

Electronic & Electrical Components

Hugh H. Eby, Inc.,—48-page illustrated loose-leaf catalog contains drawings showing all pertinent dimensions of sockets, plugs, connectors, jacks, terminal strips, knobs, photocells, relays and wide variety of binding posts.

▲ Mention Item NED-3981 when writing ▲

Industrial Storage Batteries

Gould Storage Battery Corp.—Ranges of number of plates, capacities and cell dimensions of line of industrial storage batteries are presented in 8-page illustrated broadside "Hottest News in Industrial Batteries!" Types shown include motive power, stationary, standby, glass jar and telephone batteries.

▲ Mention Item NED-3982 when writing ▲

Electric Fans

Emerson Electric Mfg. Co.—82-page illustrated catalog No. X6049 gives design and construction specifications with complete performance data on various types of desk and stand fans, air circulators, ceiling fans, ventilators, and exhaust fans.

▲ Mention Item NED-3983 when writing ▲

It's dangerous to cut Keyways under pressure with an exposed, unprotected blade.

Cut KEYWAYS Safely with The GLENNY Adjustable Expansion PUSH BROACH

SEND FOR NEW BULLETIN 11

Safe from rejects thru error—the Glenny assures maintained accuracy on all work.

Safe from rejects due to scoring of the bore.

Safe from blade breakage because sleeve of broach protects blade when tool is under pressure.

Safe for operator—sleeve acts as guard—unprotected, unsupported blades become a hazard to face and body of operator when cutting pressure is applied.

• • •

NOW—NEW GLENNY BUSHINGS ADAPT STANDARD GLENNY BROACHES TO MANY NEW TIME AND MONEY SAVING OPERATIONS

DEPT. 15 The EAST SHORE MACHINE PRODUCTS CO.
835 EAST 140th STREET • CLEVELAND 10, OHIO

▲ Mention Item NED-3984 when writing ▲

STOP HYDROSTATIC PRESSURE LEAKS THROUGH CRACKS or HOLES IN UNDERGROUND WALLS with SEEP-SEAL

STOPS THE LEAK IN 2 MINUTES

Water seepage, even hydrostatic pressure leaks, commonly found in underground concrete structures, are no longer a difficult problem to overcome. A simple, quick and most effective remedy is found in Seep-Seal. This amazing new formula, mixed with Portland cement, and inserted in any crack or actual hole in concrete, will set within 2 MINUTES to shut off ALL leakage. Ideal for manholes, elevator pits, reservoirs, subways, mine-shafts and similar structures. Also widely used in plaster-consistency for damp-proofing floors and walls.

Write for complete details and prices today. Immediate shipments

ROCK-TRED Corporation
629 West Washington Blvd • Chicago 6, Illinois
In Canada: Rock-Tred Corporation (Canada) Limited, Toronto 5

▲ Mention Item NED-3985 when writing ▲

Here's a welting to give added *good looks* and *longer wear* to your slip covers! Here's why CHEMCLAD Plastic Welting will build customer good will and peak profits, *for you*—

- Outlasts any existing coated cloth welting.
- Adds the modern, "better made and more expensive" look.
- Has no fibrous backing to become wear-exposed.
- Drapes and handles easily for any sewing.
- In bright colors (contrasting color schemes only).
- *Costs the same or less* than the welting you are now using!

Also . . . ANY AND ALL PLASTIC EXTRUDED SHAPES . . . No matter what your requirements in extruded plastics are, we can serve you. We invite the inquiry of all fabricators.

CAROLINA INDUSTRIAL PLASTICS Corp.
CHEMCLAD *Plastic Products*
MOUNT AIRY, NORTH CAROLINA

▲ Mention Item NED-3986 when writing ▲

Accurate EYE-LEVEL CHECK ON BOILER WATER LEVELS

Positive, constant check on boiler water levels is now possible at eye level—right on the instrument panel or other convenient location.

Yarway's Remote Liquid Level Indicator is always accurate because it's operated by the boiler water itself. No stuffing boxes. Indicating mechanism is never under pressure.

Ideal for indicating boiler water level, feed heater water level, superheater pressure differentials and tank levels. For complete description and operating details, write for Bulletin WG-1822.

YARNALL-WARING COMPANY
131 Mermaid Ave., Philadelphia 18, Pa.

YARWAY
REMOTE LIQUID LEVEL INDICATOR

▲ Mention Item NED-3987 when writing ▲

FOR SPEED STRENGTH ECONOMY

FASTEN THAT NEW PRODUCT

WITH Chicago AUTOMATIC RIVETING

Success or failure of your new product in post war competition may depend on your speed and cost of production. Chicago Automatic Riveting will fasten it faster, at low unit cost. From 1 to 4 tubular or split rivets are fed, inserted and clinched in the split second required to release a Chicago foot pedal. Several Chicago models are quickly adjusted to handle different sizes of rivets. Chicago Automatic Riveters fasten wood to wood, composition to composition, fabric to fabric, metal to metal, leather to leather, or any combination of these materials. They clinch grommets and eyelets and insert drive screws.

Automatic Type Single Rivet Setter

Automatic Type Double Rivet Setter with Adjustable Riveting Centers

FREE FASTENING ANALYSIS

Chicago Rivet engineers will gladly analyze your fastening problem. Actual production rates can be set from the report they give you. No charge or obligation. Just send sample assembly or blue print.

Chicago Rivet

CHICAGO RIVET & MACHINE CO.
9606 W. Jackson Blvd., Bellwood, Ill. (Chicago Suburb)

Tubular and Split Rivets in All Rivet Metals

Mention Item NED-3988 when writing

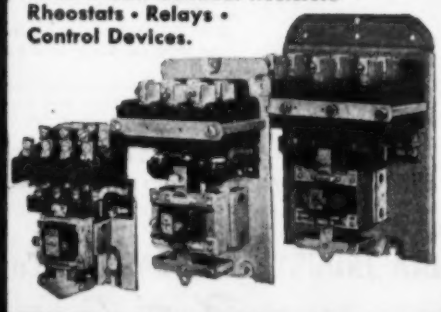
NEW COMPACT CONTACTOR..

3 Sizes up to 100 Amp

Ward Leonard's new design of a-c solenoid contactor—maximum capacity in minimum space—is now available in three sizes from 25 to 100 amp rating.

This contactor, designed to meet machine tool requirements, is compact, sturdy and requires a minimum of maintenance.

Write for Bulletin 4451. WARD LEONARD ELECTRIC COMPANY, 51 South St., Mount Vernon, N. Y. Offices in principal cities of U. S. and Canada. Resistors • Rheostats • Relays • Control Devices.



WARD LEONARD ELECTRIC CO.

Result-Engineered Controls

Mention Item NED-3989 when writing

How An Amazing Free Survey ADDED $3,346.14 TO OUR BANK BALANCE EVERY MONTH!

● If I hadn't seen it with my own eyes, I wouldn't have believed it possible. But there it was in black and white—right in our bank balance—$3,346.14 saved every month for a year's total of $40,153.68.

How, and what did we save it on? The answer is simply switching from manual handling of materials to mechanized handling with Automatic's famed TRANSTRIPLETS—those mighty midgets of electric power, Automatic's TRANSPORTERS, TRANSTACKERS and TRANSTRACTORS!

An ATCO Specialist put us wise to this saving—made a free survey of our material handling costs. And then, in a little survey booklet like you see pictured above, he showed us with facts and figures how we could LIFT AND MOVE, TOW, and EVEN STACK our materials by the simple PUSH OF A BUTTON—the forward, reverse and lifting buttons of Automatic's famed motorized hand trucks!

Our workers have gained new found freedom from lifting and hand-moving and stacking 2,000 to 6,000 pound loads. Labor is released for more productive work—and we at last have licked the problem of high material handling overhead. Write for facts.

AUTOMATIC TRANSPORTATION CO.
DIV. OF THE YALE & TOWNE MFG. CO.
361 W. 87th St. • Dept. E-8 • Chicago 20, Ill

Transporter
A PRODUCT OF AUTOMATIC

Mention Item NED-3990 when writing

NEW EQUIPMENT DIGEST

Registered U. S. Patent Office

MECHANICAL IMPROVEMENTS • INDUSTRIAL LITERATURE
NEW PRODUCTS AND MATERIALS

A. N. Gregg ..... Editor
R. M. Klein ..... Associate Editor
E. E. Penn ..... Associate Editor
E. B. Pinkham ..... Assistant Editor
John Henry ..... Advertising Manager
L. S. Hamaker, Jr. ..... Assistant Advertising Manager
J. W. Close ..... Circulation Manager

Main Office

Cleveland 13, Ohio ..... Penton Building

Advertising Representatives

F. O. Rice & Lloyd H. Weber — Penton Building, Cleveland 13
J. H. Robison & Wm. J. Lowitz — 520 N. Michigan Ave., Chicago 11
B. R. Baker — 16 E. 43rd St., New York 17
V. W. Volk (Philadelphia) — 225 Strathmore Rd., Havertown, Pa.
F. J. Fuller — 130 N. New Hampshire Ave., Los Angeles 4

New Equipment Digest is published monthly by Equipment Digest Publishing Co., Penton Building, Cleveland, Ohio; G. O. Hays, President; J. R. Dawley, F. O. Rice, J. H. Robison, Vice Presidents; E. L. Shaner, Treasurer; E. L. Werner, Secretary

Publisher's Notice

We assume no responsibility for the validity of claims in connection with items appearing in the New Equipment Digest. Addresses are given to facilitate further inquiry. Copyright 1948 by Equipment Digest Publishing Co.

Circulation Audited by CCA

May, 1948

Index to Advertisers

A

Accurate Spring Manufacturing Co. 43
Acme Equipment Co., Inc. 3
Adams, R. P., Co., Inc. 5
Aeroquip Corp. 16
Aget-Detroit Co. 17
Ahlberg Bearing Company 43
Air-Mite 8
Aircraft-Marine Products, Inc. 30
Ajax Flexible Coupling Co. 51
Alan Wood Steel Co. 26
Aldrich Pump Co., The 41
Allen Bradley Co. 52
Allen Manufacturing Co., The 54
Allis Chalmers 23, 38, 50
Alloy Bellows Engineering Co. 32
Aluminum Ladder Co. 49
Alvey Ferguson Co., The 6
American Air Filter Co., Inc. 15
American Conveyor Co. 49
American Cyanamid Co., Industrial Chemical Div. 15
American District Steam Co. 57
American Engineering Co. 12
American Floor Surfacing Machine Co., The 26
American Hoist & Derrick Co. 58
American-Marietta Company 70
American Monorail Co., The 62
American Optical Company 40
American Screw Co. 22
American Ventilating Hose Company 57
American Welding & Mfg. Co., The 34
Ames, B. C., Co. 34
Ampco Metal, Inc. 66
Anderson, V. D., Co., The 70
Anti-Corrosive Metal Products Co., Inc. 7
Apco Mossberg Co. 47
Armstrong-Bray & Co. 43
Aro Equipment Corp., The 42
Atlas Chain and Manufacturing Co. 56
Atlas Press Company 55
Automatic Transportation Co., Div. of The Yale & Towne Mfg. Co. 68
Avery Adhesive Label Corporation 69

B

Baker Industrial Truck Div. of The Baker-Raulang Co. 47
Bal, William, Corporation 48
Barber-Colman Co. 63
Barber-Greene Company 47
Beaumont Birch Company 34
Behr-Manning 33
Benson & Associates, Inc. 32
Berger, J. E., Corporation 6
Better Metal Products Co. 16
Beveridge Millwright Service, Inc. 12
Biddle, James, G., Co. 27
Bin-Dicator Company, The 56
Bird & Son, Inc. 27
Black Diamond Saw & Machine Works, Inc. 69
Blaw-Knox Div., Blaw-Knox Co. 62
Boonton Molding Company 21
Boston Gear Works 10
Bowser, Inc. 58
Bradley Washfountain Co. 57
Breuer Electric Mfg. Co. 23
Brookfield Engineering Laboratories 28
Brooks Equipment & Mfg. Co. 16
Brown Engineering Co. 23
Browne & Sharpe Mfg. Co. 46, 71
Browning Mfg. Company, Inc. 2
Bruning, Charles, Co., Inc. 22
Bryant Heater Company 47
Burgess-Manning Company 24, 55
Burns, Jabez, & Son, Inc. 36
Buschman, E. W., Co., The 48

C

C-B Tool Company 45
Cabot, Samuel, Inc. 19
Cam Tool Co., Inc. 67
Cambridge Wire Cloth Co., The 41
Campbell-Hausfeld Company, The 19
Cannon Electric Development Co. 26
Carolina Industrial Plastics Corp. 67
Century Electric Co. 46
Champion Pneumatic Machinery Co. 28
Chicago Drillet Corporation 47
Chicago Mfg. & Distributing Co. 64
Chicago Rivet & Machine Co. 68
Chicago Wheel & Mfg. Co. 72
Chicopee Manufacturing Corp. 12
Chisholm-Moore Hoist Corp. 9
Cincinnati Machinery Co., Inc. 49
Clark Controller Co. 12
Claronex Products, Inc. 44
Cleco Division of the Reed Roller Bit Co. 66
Clemson Bros., Inc. 62
Cleveland Crane & Engrg. Co., The 22, 51
Cleveland Worm & Gear Co., The 28
Climax Molybdenum Co. 6
Clipper Manufacturing Co. 46
Coffing Hoist Company 42
Columbia Machinery and Engineering Corp. 45
Commander Mfg. Co. 20
Commercial Shearing & Stamping Co., The 9
Cone Drive Div., Michigan Tool Co. 40
Continental Rubber Works 50
Cook, Lawrence H., Inc. 54
Cover, H. S. 8
Crane Co., The 57
Cullman Wheel Company 24
Cuno Engineering Corp. 14
Cunningham, M. E., Co. 23
Curtis Pneumatic Mchry. Div., Curtis Mfg. Co. 63
Cushman & Denison Mfg. Co. 6
Cutler-Hammer, Inc. 54

D

Dart, E. M., Manufacturing Co. 15
Davey Compressor Co. 28
Davis Regulator Company 38
Dayton Rogers Mfg. Co. 41
DeLaval Steam Turbine Co. 43
Deming Co., The 27
Dempster Bros., Inc. 53
Despatch Oven Co. 53
Detecto Scales, Inc. 63
Detroit Hoist & Machine Co. 52
Detroit Power Screwdriver Co. 68
Detroit Tap & Tool Co. 39
Deutsch Lock Company, Inc. 2
DeWalt Products Corp. 45
Di Machine Corp. 2
Dietzgen, Eugene, Co. 15
Dings Magnetic Separator Co. 17
Disston, Henry & Sons, Inc. 53
Distillation Products, Inc. 51
Downs Crane & Hoist Co. 5
Dravo Corporation 38
DuMont Corporation, The 53
Durant Mfg. Co. 18

E

East Shore Machine Products Co., The 67
Eastman Kodak Company 13
Easy Tote Products Co. 29
Eclipse Air Brush Co., Inc. 69
Electric Controller & Mfg. Co., The 24
Electric Tachometer Corp., The 8
Elgin National Watch Co. 66
Enterprise Machine Parts Corp., The 26
Erie Engine & Mfg. Co. 33
Eriez Manufacturing Co. 29
Essex Wire Corp. 5
Exact Weight Scale Co., The 9
Ex-Cell-O Corporation 61

F

F & M Sales Co. 44
Fab-Weld Corporation 27
Fabri-Form Co., The 44
Fafnir Bearing Co., The 30
Fairfield Mfg. Co. 49
Farrelloy Company 52
Fastener Corporation 8
Felters Company, The 18
Ferguson, Harry J., Company 69
Finn & Co. 70
Fisher Equipment Co. 57
Fisher Research Laboratory, Inc. 14
Flexible Steel Lacing Co. 10
Flexrock Co. 17, 72
Formica Insulation Co., The 28
Foxboro Co., The 5
Fulflip Specialties Co., Inc. 61
Fuller Brush Co., The 59

G

Gast Mfg. Corp. 59
General Box Co. 21
General Controls 31
General Electric Co. 26, 39, 42
General Fittings Co. 42
General Plate Division of Metals and Controls Corp. 22
General Scientific Equipment Co. 66
General Tire & Rubber Co., The 33
Geneva Metal Wheel Co. 70
Goodrich, B. F., Co. 55
Gorton, George, Machine Co. 29
Gray Hub Co. 3
Gray-Mills Corporation 6
Greiner, Emil, Co., The 2
Grinnell Co., Inc. 38
Groban Supply Co. 61
Guardian Electric Mfg. Co. 57

Write for this Manual

...which gives you complete information on Plastipitch—the protected corrugated roofing and siding material which helps—

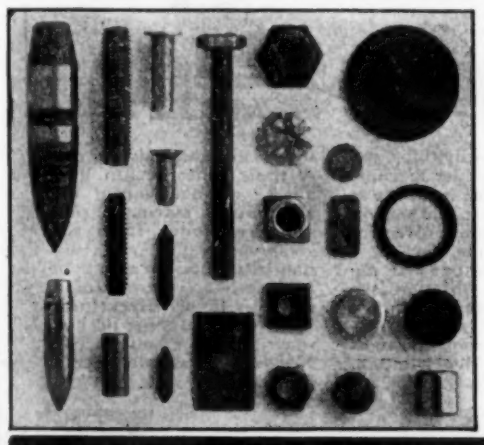
1. To speed up industrial construction
2. To keep capital expenditures low for industrial buildings
3. To keep buildings flexible to meet changes in processes
4. To prevent corrosion of corrugated metal

Koppers Plastipitch* Protected Metal is corrugated roofing and siding protected by an improved method of making steel sheets impervious to water, moisture, salt air and industrial corrosive fumes.

KOPPERS COMPANY, INC.
Department 411T, Pittsburgh 19, Pa.
*Reg. Trade Mark, U.S. Pat. Off.

Mention Item NED-3991 when writing

These sturdy, efficient machines are built to feed various parts, a representative group of which are pictured below, showing their wide versatility ..... Motorized Hopper Units are easily adapted to Presses, Centerless Grinders, Thread Rolling and Slotting Machines, or special machines. They will feed Screws, Screw Blanks, Rivets, Pins, Discs, Nuts, Bearing Rollers, Steel Balls, Washers. 4 Diameters: 10", 12", 16" and 24". SEND SAMPLES FOR DETAILS AND PRICES



DETROIT POWER SCREWDRIVER CO.

2819 WEST FORT STREET • DETROIT 16, MICHIGAN

Mention Item NED-3992 when writing

ECLIPSE LOW PRESSURE PAINT SPRAY EQUIPMENT by using lowest possible air pressure and volume, consistent with good results, reduces offspray and fumes.

The result: More complete coverage in one pass of the spray gun—decreased paint waste.

OTHER ADVANTAGES—

- Uses less power
- Reduces fire hazards
- Increases operation speed
- Smoother finishes, higher gloss
- Better flow, penetration, adhesion
- Greater durability
- Less sanding and rubbing

You'll like the rugged simplicity of *Eclipse Low Pressure Spray Equipment* and its service.

Send for our complete catalogue

Write: ECLIPSE AIR BRUSH COMPANY, INC.
Park Ave. at 14th St., Newark 7, N. J.

Spray Equipment Division
ECLIPSE
Manufacturers of Low Pressure Spray Equipment Since 1908

▲ Mention Item NED-3993 when writing ▲

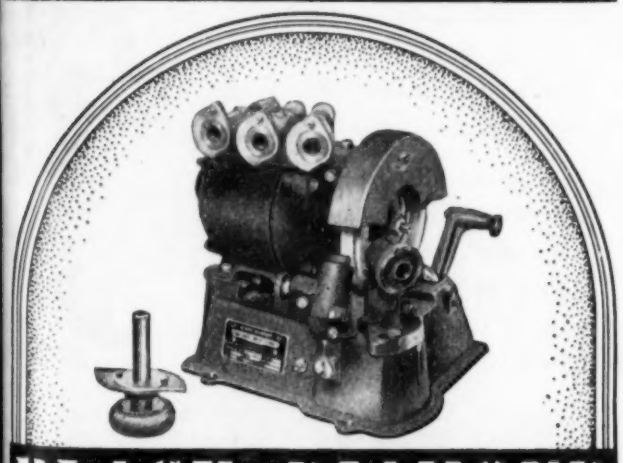
Announcing THE NEW FERGUSON ALUMINUM TURN-IT-OVER CONVEYOR

Lighter than steel . . . with the well-known two-in-one feature . . . portable, durable and NOW easier to handle! "Set low", the channel side rails form a protective guard for small packages—and, by simply turning it over, the rollers are "Set High", permitting the handling of packages larger than the width of the conveyor. These dual-purpose units are made in 10'-0" standard lengths in a number of standard widths and curves. Write for details.

Ferguson "Turn-it-Over" Conveyors are also available in steel, in both Gravity Roller and Gravity Wheel Types.

HARRY J. FERGUSON COMPANY
WHEEL • PORTABLE BELT • BELT AND ROLLER GRAVITY CONVEYORS
133 WEST AVENUE, JENKINTOWN, PENNA.

▲ Mention Item NED-3994 when writing ▲



BLACK DIAMOND
PRECISION DRILL GRINDER

FOR THE AUTOMATIC-PRECISION-GRINDING OF SMALL DRILLS—THE ONLY MACHINE OBTAINABLE IS A—BLACK DIAMOND

With a Black Diamond, the use of skilled labor is not necessary, because anyone can operate this grinder, keep all drills properly ground with smooth lips of uniform length—true centered and at the proper angle and correct clearance for fast drilling.

Black Diamond grinding insures fast, precision drilling, reduces drill breakage, saves expensive drill stock and cuts drill sharpening and drilling costs—50% and more.

The built-in Diamond Dresser keeps the grinding wheel sharp cutting and the Web Thinning Attachment efficiently cares for grinding all types of Notched points. *Write for details.*

BLACK DIAMOND SAW & MACHINE WORKS, INC.
NATICK, MASSACHUSETTS

▲ Mention Item NED-3995 when writing ▲

Advertisers Index—Continued

H

Hallemite Mfg. Co., The 12
Hamilton Tool Co., The ..17, 48
Handees Company 65
Hanna Engineering Works .. 57
Hannifin Corporation 63
Hansen, A. L., Mfg. Co..... 55
Harnischfeger Corp. 40, 59
Haynes Stellite Co. 50
Hein-Werner Corporation 39
Hertner Electric Co., The .. 38
Hexacon Electric Co. 27
Hickox Electrical Instrument Co., The 2
Hill Acme Company, The ... 35
Holden Company, The 2
Holt Mfg. Co. 7
Homer Manufacturing Co., Inc., The 5
Homestead Valve Mfg. Co. .. 41
Honan-Crane Corporation 36, 37
Hoover Ball and Bearing Co. 59
Hughes Keenan Co., The ... 47
Hunt, C. B., & Son, Inc. ... 53
Hunt, Rodney, Machine Co... 62
Hunter Fan & Ventilating Co., Inc. 3
Hunter Photo-Copyist, Inc. .. 37
Huppert, K. H., Co. 21

I

Ideal Industries, Inc. 3
Illinois Testing Laboratories, Inc. 20, 69
Imperial Brass Mfg. Co., The 35
Independent Pneumatic Tool Co. 46
Industrial Brownhoist Corp... 25
Industrial Equipment Co. ... 49
Industrial Gear Mfg. Co. ... 15
Industrial Gloves Co. 72
Industrial Materials Co. of America 13
Industrial Products Company 60
Ingersoll-Rand 10
Ingersoll Steel Division, Borg-Warner Corp. 60
Inland Steel Co. 4
International Nickel Co., The 27
International Resistance Co.. 58
International Staple & Machine Co. 18
Ironbound Box & Lumber Co. 15

J

Jefferson Electric Co. 65
Jeffrey Mfg. Co., The 63
Johns-Manville 10
Johnson Bronze Co. 55
Johnson Mfg. Corp. 44
Johnson, S. C., Co., The 30
Jones, Howard B., Division Cinch Mfg. Corp. 31

K

Kearney & Trecker Products Corp. 35
Kempsmith Machine Co. 5
Kester Solder Co. 65
Koppers Company, Inc. 68
Korb-Pettit Wire Fabrics & Iron Works, Inc. 28
Krieg, Charles W., Company. 29

L

Lamson Corp. 33
Lapeer Manufacturing Co. .. 48
Lawlor, S. G., Co. 42
Leavitt Machine Co., The ... 39
Leeds & Northrup Co. 9
Leiman Bros. 23
Lewis Shepard Products, Inc. 49
Lift Trucks, Inc. 71
Lima Electric Motor Co., The 11
Link-Belt Co. 23
Littell, F. J., Machine Co. 34
Logan Co., Inc. 4
Logan Engrg. Co. 16, 39
Lovejoy Flexible Coupling Co. 46
Lyon-Raymond Corp. 11, 40

Mc

McCord Corporation 23

M

M B Manufacturing Co., Inc., The 67
Machine Products Corp. 29
MacRae's Blue Book 27
Madison Manufacturing Co... 46
Marchant, Geo. F., Company 31
Martin, Glenn L., Co., The.. 25
Marvel Engineering Co. 71
Master Rule Mfg. Co., Inc... 25
Mathews Conveyor Co. .. 36, 37
Matthews, Jas. H. & Co. 58
Mead Specialties Co. 16
Mercoid Corporation, The .. 64
Merrill Bros. 65
Metzgar Co. 41
Micro Switch 26
Mitts & Merrill 51
Monroe Company, Inc., The 20
Montgomery Manufacturing Company 14
Mortell, J. W., Co. 72
Moto-Truc Co., The 19

N

National Electric Products Corporation 32
National Pneumatic Co. 54
National Production Co. 4
National Screw & Mfg. Co., The 46
New Jersey Machine Co. 40
Newark Wire Cloth Co. 43
Niagara Blower Co. 31
Nicholson, W. H., & Co. 13
Nicholson File Co. 35
Nolan Company, The 65
Norma-Hoffman Bearings Corp. 7
North Bros. Mfg. Co. 60
Norton Company 24

O

Ohio Brass Company 59
Ohio Knife Co., The 37
Ohio Rubber Company, The. 4
Ohio Tool & Engrg. Co. 17
Ohmite Mfg. Co. 19
Oilgear Company, The 11
Olympic Glove Company, Inc. 63
Onan, D. W. & Sons, Inc. .. 52
O'Neil Irwin Mfg. Co. 61
Orange Roller Bearing Co., Inc. 72
Owens-Corning Fiberglas Corporation 64

P

Paisley Products, Incorporated 67
Parker-Kalon Corp. 60
Parker Pattern & Foundry Co. 5
Parsons Engineering Corp. .. 59
Pawtucket Manufacturing Co. 35
Peerless Electric Co., The .. 60
Penetone Co., The 7
Penn Metal Corporation 56
Pfening, Fred D., Company, The 3
Pike, E. W., & Co. 29
Pioneer Ruber Co., The 47
Pittsburgh Plate Glass Company 25
Porter-Cable Machine Co. ... 71
Post, Frederick, Co., The .. 11
Power Development Corp. .. 53
Production Instrument Co. .. 14
Progressive Mfg. Co., The .. 41
Punch-Lok Company 17
Pyle-National Company 24

R

R. B. M. Division, Essex Wire Corp. 59
Rapids-Standard Co., Inc., The 58
Rauland-Webster Sound Div. The Rauland Corp. 23
Redmond Company, Inc. 6
Reliance Electric & Engrg. Co. 19
Revolvator Co. 44
Reznor Mfg. Co. 44
Ridge Tool Co., The 22
Robbins & Myers, Inc. Hoist & Crane Div. 55
Roberts, Weldon, Rubber Co. 55
Rockford Clutch Div., Borg-Warner Corp. 32
Rock-Tred Corp. 67
Rockwood Sprinkler Co. 11
Rolock, Incorporated 52
Roper, Geo. D., Corporation 50
Rotary Lift Co. 51
Ryerson, Jos. T., & Son, Inc. 4

S

Sabin Machine Co., The 14
Safety & Maintenance Co., Inc. 14
Sanstorm Manufacturing Co. 3
Sarco Co., Inc. 42
Saval Company 31
Schraders's A., Son..... 38
Schramm, Inc. 31
Schutte and Koerting Co. ... 34
Scientific Research Co. 10
Screen Equipment Co., Inc. 53
Scully-Jones & Company 49
Sedberry, J. B., Inc. 24
Sermat Conveyor Corp. 72
Service Recorder Co., The .. 14
Severance Tool Industries, Inc. 50
Signode Steel Strapping Co... 69
Simmons Fasteners 45
Simplex Time Recorder Co... 45
Skinner Electric Valve Div., The Skinner Chuck Co. .. 61
Sly, W. W., Mfg. Co., The.. 22
Smith, F. A., Manufacturing Co., Inc. 24
Smith, G. W., & Sons 48
Smooth-On Mfg. Co. 55
Sparkler Mfg. Co. 45
Spencer Thermostat Co. 52
Spencer Turbine Co., The ... 51
Spray Engineering Co. 32
Stackbin Corp. 20
Standard Conveyor Company 20
Standard Locknut & Lockwasher, Inc. 52
Standard Pressed Steel Co. 12, 56 64
Sta-Warm Electric Co. 11
Stearns Magnetic Mfg. Co. .. 72
Steel Parts Mfg. Co. Division of Blackstone Mfg. Co., Inc. 30
Stephens-Adamson Mfg. Co. 8, 9
Stokes, F. J., Machine Co... 45
Stonhard Company 71
Sturtevant Mill Company 41
Sunnen Products Co. 70
Super Tool Co. 71
Superior Tube Co. 36
Surplus Assets Corp. 3
Sweet, H. C., Co. 10
Synthane Corp. 36
Syntron Co. 16

T

Taber Instrument Corp. 7
Taylor & Fenn Co., The 19
Thew Shovel Co., The 66
Thomas Truck & Caster Co.. 51
Tinnerman Products, Inc. ... 62
Titeflex, Inc. 37
Toledo Scale Co. 66
Toledo Timer Co., The 21
Tomkins-Johnson Co., The .. 58
Torit Mfg. Co. 58
Torrington Co., The 32
Tower, A. J., Co. 4
Tri-Clover Machine Co. 61
Trumbull Electric Manufacturing Co., The 25

U

Union Chain and Manufacturing Co., The 20
Union Metal Mfg. Co., The 36, 37
United Electric Controls Co... 40
United Laboratories, Inc. ... 2
United States Electrical Tool Co., The 28
United States Gauge Division, American Machine & Metals, Inc. 34, 43
Universal Engineering Co. .. 50

V

V & E Mfg. Co. 62
Valvair Corp. 8
Van Dorn Div. of Black & Decker Mfg. Co. 71
Vapofier Corp. 18
Veeder-Root, Inc. 39
Vogel-Peterson Co. 50
Vulcan Electric Co. 17

W

Walker, O. S. Co., Inc. 18
Walker Turner Company, Inc. 37
Wallace & Tiernan Products, Inc. 36
Ward Leonard Electric Co. .. 68
Warren Webster & Co. 9
Webb, Jervis B., Co. 7
Wedge Protectors, Inc. 13
Wellman Bronze & Aluminum Co., The 7
West Bend Equipment Corp.. 54
Westinghouse Electric Corporation 21, 35, 42
Weston Electrical Instrument Corp. 33, 54
Wheeler Reflector Co. 53
Wiegand, Edwin L., Co. .. 4, 61
Wirebound Box Manufacturers Ass'n. 25
Wisconsin Motor Corp. 65
Wolverine Tube Division 54
Wood Conversion Company.. 56
Wood Shovel & Tool Co. 30
Worthington Pump & Machinery Corp. 20, 31
Wrought Washer Manufacturing Co. 40

Y

Yale & Towne Manufacturing Co., The 25, 48, 64
Yarnall-Waring Company 30, 67
Young Radiator Co. 21

Peelable PRODUCTION STICKERS

APPLIED WITHOUT MOISTENING

ADHERE TO ANY SMOOTH SURFACE

EASILY PEELED OFF

Here's an entirely new type sticker that makes obsolete past methods of marking parts in production—takes the place of string tags, chalk marks, water-gum stickers.

These new Kum-Kleen stickers are far easier and faster to use—are applied without moistening, stick permanently with a finger-tip pressure to any smooth surface—metal, glass, plastic, wood, paper—won't fall off and can't get lost. When the job is done they peel off like magic—in one piece, never harm the surface. Available in various sizes, printed or plain.

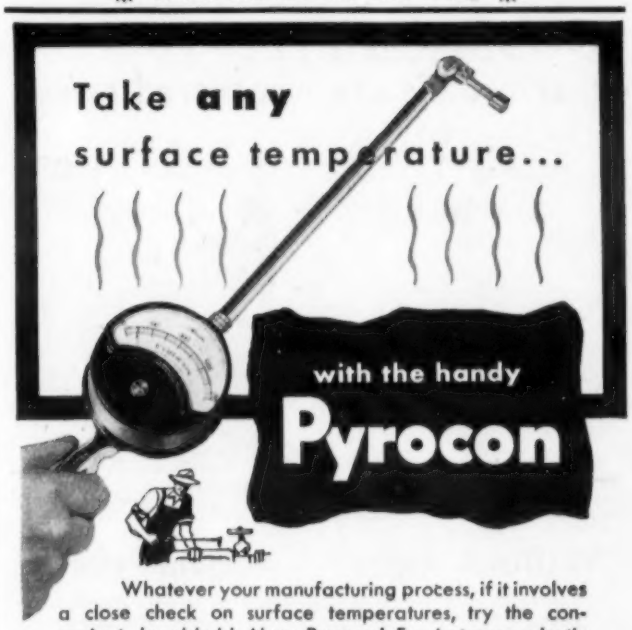
Write for samples and booklet which explains hundreds of ways in which Kum-Kleen stickers have increased production and efficiency. Dept. NED-5.

Kum-Kleen

AVERY ADHESIVE LABEL CORP., Monrovia, California: 41 Park Row, N. Y. 7: 608 South Dearborn Street, Chicago 5: 2930 W. Grand Blvd., Detroit 2, and all principal cities. Canada: Enterprise Sales, Toronto.

▲ Mention Item NED-3996 when writing ▲

Take **any** surface temperature...



with the handy **Pyrocon**

Whatever your manufacturing process, if it involves a close check on surface temperatures, try the convenient, hand-held Alnor Pyrocon! For instance, plastic molding, die-casting, rubber and paper products processing—all can be speeded up, higher qualities can be attained, through the easy use of this compact portable pyrometer. Readings are quick; accuracy is of laboratory quality. Pyrocons cost little—are immediately available. Write for Bulletin 4257 and prices. Illinois Testing Laboratories, Inc., Room 529, 420 N. La Salle Street, Chicago 10, Illinois.

Alnor PRECISION INSTRUMENTS FOR EVERY INDUSTRY

▲ Mention Item NED-3997 when writing ▲

SIGNODE A-2 Seal-Feed Strapping Machine!

ONE tool—THREE operations—tensions ... cuts ... seals. Operates efficiently on bales, boxes, bundles, cartons, crates, etc.... straps pallets and skid loads. Handy where strapping jobs are widely separated. Especially satisfactory on conveyor line operations, with or without the use of tool mounts.

Lightweight, the A-2 saves time and energy for the worker, speeds production, cuts strapping costs. Inexperienced operators quickly develop speed and skill. For full details, mail coupon below.

SIGNODE STEEL STRAPPING CO.
2632 N. Western Ave., Chicago 47, Illinois
Gentlemen: Please send us fully descriptive folder on your new A-2 Self-feed Strapping Machine.

Name .....
Address .....
City ..... Zone ..... State .....

▲ Mention Item NED-3998 when writing ▲

That could be simplified with

SUPER-SILVERTOP

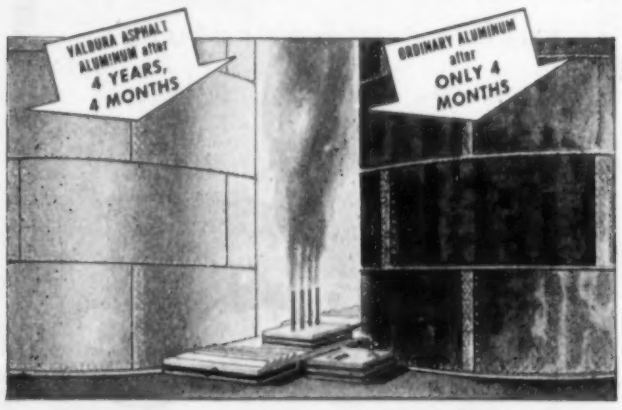
Even a simple installation such as dripping a main, can be simplified with a Super-Silvertop inverted bucket Steam Trap. Notice the saving in fittings, think of the difference in installation time. Even if you included a strainer the simpler job would use less fittings.

Super-Silvertop traps have *no* cored passages, can be used either as an elbow or straight-in-line, are years ahead in engineering advantages. Let us tell you more about the details and advantages of Super-Silvertop Traps—write for a copy of "How To Choose A Steam Trap," a helpful, useful book that is sent free on request.

THE V. D. ANDERSON COMPANY
1932 West 96th Street • Cleveland 2, Ohio

▲ Mention Item NED-3999 when writing ▲

Looks *gleamingly new* when other brands are weathered away!



VALDURA Asphalt Aluminum Paint!

Why buy aluminum paint that weathers away in a few months? You can count on 5 to 10 years service with Valdura Asphalt Aluminum Paint—longer if 2 coats are applied. Valdura Asphalt Aluminum paint outlasts, out-protects, out-wears all other aluminum paints in every comparison test! Costs no more, either. The secret is a special Tung Oil vehicle plus a base of 99.5% pure Gilsonite asphalt—nature's most enduring weather-proofing substance! Used the world over on bridges, tanks, roofs, stacks, buildings, etc. Withstands steam, water, cold, heat, ice, brine, smoke, fumes, salt and soot. Resists all weathering! Send for the facts *today.*

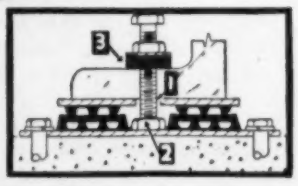
VALDURA DIVISION
AMERICAN-MARIETTA COMPANY
43 E. Ohio St. Dept. H Chicago 11, Ill. U.S.A.

▲ Mention Item NED-4000 when writing ▲

VIBRATION

PROTECT ALL TYPES OF MACHINES WITH "FINNFLEX" VIBRATION DAMPNERS

FINNFLEX offers practical tested methods of isolating machine vibration.

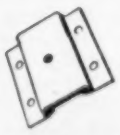


Built on "Rubber - in - Shear" principle for *maximum efficiency.* High grade rubber inserts are held in place by steel retaining brackets. *Easy to install. Economical. Efficient.* Sturdy, practically indestructible.

CM SERIES, engineered Vibration Dampners for *horizontal, rotary or vertical vibration.*

Plus **"SHOCKMOUNTS"** for **IMPACT MACHINERY**

Send us your problem. Write for 4-PAGE ILLUSTRATED FOLDER and PRICE LIST



FINN & CO. 2842 Eighth Avenue New York 30, N. Y.

▲ Mention Item NED-4001 when writing ▲

Index to Products

A

Abrasive Products 24, 33, 55, 66
Absorbent, Liquid 14
Adhesives 37, 62
Alloys, Special Purpose 50, 59, 66, 67
Aluminum Products 55, 56, 60
Arbors 5, 49
Asbestos Products 60

B

Batteries 30, 67
Battery Charger 35, 38
Bearings; Ball, Roller & Thrust .....7, 9, 13, ...24, 30, 39, 43, 62, 63, 66
Bearings, Needle 72
Belt Fasteners 10, 43
Belting 50
Bins & Boxes, Parts 20, 41
Boxes & Crates, Wooden ..21, 25
Boxes, Shop 35
Brazing Materials 49, 71
Broaching Equipment 23, 24, 67
Bronzes 55, 66
Brushes 25, 59
Buckets, Crane 25, 30, 62
Buying Guide 27

C

Calculators 9
Car Door Opener 65
Car Spotter 12
Castings, Light Metal 7
Cements, Repair 55
Chain Accessories 42
Chains, Roller 20, 56
Chucks, Collet 50
Chucks, Magnetic 18, 46
Clamping Devices 48
Cleaners, Air 5, 39, 55
Cleaners, Drain 11, 17
Cleaners, Tube 48
Cleaners, Vacuum 7, 23, 33, 51
Cleaning Equipment, Blast .. 3
Cleaning Machines, Parts ..6, 13
Cleaning Materials ..... 7, 54, ... 57, 58, 61
Clutches 32
Coatings, Protective ..44, 62, 63
Collars 64
Collets 72
Combustion Equipment 18, 23, 47
Communications Equipment .. 23
Compressors, Air 28, 31, 64
Condensation Preventive 72
Construction Materials ..55, 68
Controls, Electric ..1, 12, 19, 24, ... 25, 26, 52, 54, 59, 64, 68
Controls, Hydraulic 2, 30, 31, 53, 57, 61
Controls, Level 38, 56
Controls, Pneumatic 8, 31, 38, 57
Controls, Pressure ..... 2, 8, ... 40, 63, 64, 67
Controls, Production ..... 8, 14, ... 38, 50, 71, 72
Controls, Remote 52
Controls, Temperature ..... 31, ... 32, 42, 63, 64
Conveyor Accessories 41
Conveyors, Belt 6, 13, 20, 27, 30, 35, 36, 37, 47, 49, 70
Conveyors, Bucket 1, 8
Conveyors, Roller ..4, 20, 41, 69
Conveyors, Wheel 17, 38, 41
Counting Devices ..14, 18, 29, 39
Couplings, Flexible 51, 64
Cranes ..... 26, 35, 47, ...49, 60, 62, 66, 67
Cylinders, Air & Hydraulic.. 8, ... 16, 61

D

Die Accessories 41
Diecasting Machine 45
Dies 31
Drafting Equipment ..22, 44, 62
Dressers, Wheel 51
Drill Heads, Adjustable 20
Drilling Machines ..... 19, 37, ... 42, 48, 55
Drills 12, 46
Drives, Hydraulic 53
Drives, Machine 7, 50
Drives, Variable Speed ..21, 46
Duplicating, Dieless 61
Dust Collectors ...17, 22, 58, 65

E

Electric Plants 52
Elevating Equipment ..... 11, ... 31, 44, 51, 53
Engines, Gasoline 18, 33, 65

F

Fans & Blowers 3, 60, 67
Fastening Devices 7, 11, 12, 22, 39, 44, 45, 46, 17, 51, 52, 54, 55, 60, 62, 64, 65
Feeders, Motorized Hopper .. 68
Feeders, Stock 34, 60
Felt Products 18
Files 13, 35
Filtering Equipment ..14, 15, 45
Finishes 70
Finishing Equipment, Spray 19, 69
Fire Extinguishing Equipment 3, 11
Fire Pot 45
Floor Machines 5, 11, 30, 42, 52
Floor Resurfacers ..... 2, 12, ... 20, 56, 71, 72
Flooring Materials 4, 26
Fluxes 52
Forming Machine, Metal 25
Fuses 31, 65

G

Gage Holders 32, 53
Gages, Level 67
Gages, Precision 4, 26, 27, 34, 51
Gages, Pressure & Temperature 34, 36, 43, 54
Gearing 15, 49
Germicidal Lamps 45
Gloves, Industrial 63, 72
Gloves, Neoprene 47
Goggles 38, 40
Grinders, Tool & Cutter .... 39, ... 66, 69
Grinding Machines 6, 30, 71

H

Hammer Molding Equipment 54
Heat Exchangers.... 21, 31, 57
Heaters, Compound 4, 11
Heaters, Electric 17, 61, 64
Heaters, Unit 18, 33, 40, 44
Heaters, Water 3, 19, 42
Heating Equipment 59
Hoists 9, 12 35, 40, 42, 48, 52, 58, 62, 63
Holloware, Fiber 48
Honing Equipment 70
Hose & Fittings ..16, 17, 39, 57
Housings, Metal 63
Humidifying Equipment 66

I

Indicators, Humidity 33
Inspection Equipment 7, 29
Instruments, Electric 3, 39, 41, 66
Insulation, Thermal 64

J

Jacks 29
Jacks, Leveling 26
Jigs & Fixture 48
Joints, Swing 1

K

Knives & Blades 37

L

Labeling Equipment..... 67
Labels 69
Ladders 49
Laminated Materials 22
Lathes 16
Lawn Mower 53
Lighting Equipment .....3, 6, ... 29, 37, 46, 59, 65
Lights, Pilot 49
Lockers & Shelving 50, 56
Locks 2
Lubricants 64
Lubricating Equipment 14, 34, 65

M

Machine Parts 29
Machine Tools 49
Machine Tool Accessories ... 2, ... 29, 40, 41, 44, 65
Magnetic Equipment ..... 5, ...17, 29, 36, 72
Magneto 40
Management 60
Markers, Floor 10
Marking Equipment ..... 6, ... 20, 23, 35, 48, 58
Materials Handling Equipment 15, 23, 27, 34, 36, 37, 45, 59, ... 60, 71
Materials Handling, Overhead 12, 48, 51, 62
Mats, Floor 27
Melting Pots 4
Meters, Flow 3, 5, 34, 58
Milling Machines 46
Mills, Hammer 44
Mixing Equipment 41
Moldings, Metal 64
Molybdenum Alloys 6
Motors, Electric 6, 11, 23, 24, 46

O

Office Equipment ..4, 16, 62, 66
Ovens, Industrial 21, 53

P

Packaging Equipment 5, 36
Packaging Materials 56
Packings & Gaskets 10, 58
Parts, Precision 32, 41
Photoelectric Equipment 2, 26
Pipe & Fittings ..15, 61, 62, 67
Pipe Joint Compound 19
Pipe Locator 14
Pipe Tools & Machines ..22, 58
Plastics 12, 21, 28, 36, 44, 54, 60, 65, 67
Plate Lifters 5, 10, 61, 65
Plating Equipment 60
Polishing Equipment 28, 36
Power Transmission Equipment 10
Power Units, Hydraulic 11, 22
Press Actuator 54
Presses, Die Tryout 18
Presses, Hydraulic 27, 34, 44, 64
Presses, Pneumatic 12
Presses, Punch ..1, 2, 4, 19, 64
Process Equipment 52
Production Facilities ..61, 65, 71
Protectors, Motor 52
Protectors, Pipe Thread 13
Pullers, Gear & Wheel 43
Pulleys & Sheaves 2, 23
Pulverizers 63
Pumps ..... 2, 20, .. 27, 38, 40, 41 43, 50, 58, 66
Pumps, Coolant 61
Pumps, Vacuum ..40, 45, 51, 59
Punches 31
Pyrometers 69

R

Racks 23
Reclaimers, Grinding Wheel ..42
Reclaimers, Oil 2
Recorders, Sound 59
Rectifiers 35
Reels, Hose 28
Refractories 66
Regulators, Voltage 42
Relays 57, 67
Reproduction Equipment 9, 11, ...13, 15, 25, 37, 60, 61
Resistors 58
Respirators 8
Rings 34
Riveting Equipment 68

Geneva WHEELS OFFER:

WIDE RANGE OF SIZES
WIDE RANGE OF TYPES
EN-GINEERED METAL DISTRIBUTION
EXPERT ENGINEERING SUGGESTIONS
TROUBLE-FREE PERFORMANCE

★ 5 Star Headings describe our wheel service. Complete engineering and a modern plant efficiently equipped to serve your wheel requirements. Wheel problems? Send them to GENEVA!

SOLD ONLY TO MANUFACTURERS OF PORTABLE EQUIPMENT

GENEVA METAL WHEEL CO.
192 RAILROAD ST. • GENEVA, OHIO

▲ Mention Item NED-4002 when writing ▲

The R. H. Sheppard Co., Inc.

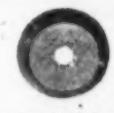
Puts Precision Internal Finishing On a Production Basic With

SUNNEN HONING MACHINES

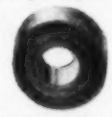
Connecting Rod forging — Hole diameter 1.188", total tolerance, .0005" (five ten-thousandths).

Cast iron piston — Alignment between two holes 1.0625", total tolerance, .0002" (two ten-thousandths). Production 40 pistons per hour.

Bronze fuel injection cylinder — Total tolerance, .00005" (fifty millionths) on diameter of .3125". Production 12 pieces per hour.



Hard steel (60 C scale) governor weight — Total tolerance, .00025" (two and one-half ten-thousandths), diameter .315"



Hard steel (60 C scale) roller — Total tolerance, .0002" (two ten-thousandths), diameter of .2495". Production 40 pieces per hour.

Hard steel (60 C scale) fuel pump cam — Total tolerance, .0002" (two ten-thousandths) on diameter of .250". Production rate 40 pieces per hour.

On many parts such as those shown here Sunnen Honing holds tolerances as low as .00005" (fifty millionths) or less — at a production rate that is economical.

Here are some of the reasons why so many industrial companies are using Sunnen Honing to produce accurate internal diameters of .120" to 2.625":

- Produces straight round holes—accurate to .000025" (25 millionths of an inch)
- Produces any degree of surface finish within commercial limits
- Maintains accurate alignment between tandem holes
- Hones all metals, plastics, ceramics—except lead and babbitt
- Operates without jigs or fixtures
- Low in cost—economical to use

Write today for details — or, on request, a Sunnen engineer will call at your plant.

SUNNEN PRODUCTS COMPANY
7931 Manchester Ave., St. Louis 17, Misssouri
Canadian Factory: Chatham, Ontario

▲ Mention Item NED-4003 when writing ▲

1½¢ PER DAY...

maintains the HydroLectric "EHW" Lift Truck

It's a fact! Records of 570 truck-months service in the plant of one noted Hydrolectric user prove it. Combined with this rock-bottom operating cost was *almost complete elimination of downtime!*

Initial low cost of a Hydrolectric Lift Truck is NOT just a down payment on year-in, year-out repair bills. Top-quality construction keeps Hydrolectrics on the job . . . prevents costly breakdowns. Machined, standardized parts,—actually priced as much as 80% lower than parts for competing trucks—simplify and speed occasional repairs . . . cut downtime to a minimum. Write for catalog G giving full details of this amazing new truck.

LIFT TRUCKS INCORPORATED
2425 Spring Grove Ave., Cincinnati 14, Ohio

▲ Mention Item **NED-4004** when writing ▲

GRINDS CONTOURS FASTER...

NEW PORTER-CABLE C-6 ABRASIVE BELT CONTOUR GRINDER

Also does flat-face grinding and polishing

The New C-6 is a money-maker in any shop. Saves costly set-up time . . . eliminates re-working of the shape and the continual loading of ordinary wheel with necessary abrasive material.

For contour grinding, simply shape desired contour (shown opposite) on contact roll while it is turned by drive wheel. Abrasive belt folds into contour . . . shapes work with minimum pressure.

For flat-face grinding or polishing, simply use unshaped contact roll. Since it is not on the drive wheel, the roll is not "aggressive" . . . or shaken by motor vibrations. Hence, you get smoother, superior finish.

The C-6 is a self-contained unit . . . guarded . . . equipped with dust drawer and outlet. Size: only 26"x38". Mounting of contact roll permits easy wide adjustments.

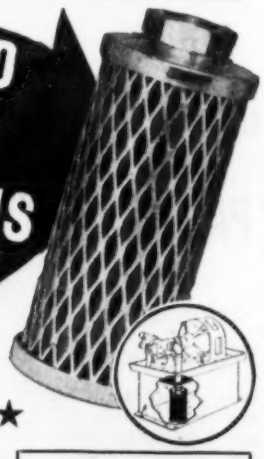
The New C-6 Contour and Flat-face Grinder Is Smoother . . . faster . . . Cleaner.

See Why! Ask for Latest Literature

PORTER-CABLE MACHINE CO.
1710-5 N. Salina St. Syracuse, N. Y.

▲ Mention Item **NED-4005** when writing ▲

OVER 2,000 FILTERING COMBINATIONS with MARVEL



the WORLD'S MOST VERSATILE FILTER

for Oils and Other Liquids

Solves Industry's Filtering Problems ★ Unusual design and construction of Marvel Synclinal Filters give advantages of engineered-to-specifications efficiency at less production cost. Never before has such a versatile filter been offered as a stock item! Space limitations no longer a problem. Flow rates and filtering requirements met according to your needs. Never again need a machine be designed around a filter, for Marvel's adaptability makes available to you a filter combination meeting your exact demands.

MARVEL SYNCLINAL FILTER
- Filtering Capacity equal to 3 like size units
- Faster flow under less pressure
- Easy to install . . . Easy to clean
- Only 6 different parts, all readily replaceable
- Fit exactly to your need

MARVEL—"A Custom Made Filter at a Ready Made Price"

Write for free booklet No. 103 describing Marvel filters with capacities up to 3 gallons per minute. We will supply you with a Marvel Synclinal filter combination to exactly and efficiently meet your particular needs.

MARVEL ENGINEERING COMPANY
629 W. Washington, Dept. 35, Chicago 6, Ill.

▲ Mention Item **NED-4006** when writing ▲

Products Index—Continued

R

Rolls 62
Rubber Products 4, 50, 71
Rubber, Synthetic 64
Rules, Tape 25

S

Safety Equipment ..... 4, 6, ... 29, 32, 33, 50, 71
Saws, Masonry 37, 46
Saws, Metal Cutting ..... 24, ...44, 53, 60, 62
Saws, Wood 26, 45
Scaffolding 43
Scales 9, 63, 66
Screens 60
Screens, Vibrating 53
Screwdriver 60
Screwdriver, Torque 47
Shears 22, 45
Shop Equipment 56
Shovels, Hand 30
Shovels, Power 32
Shredders 51
Signs 10
Solders 55, 65
Speed Reducers ..... 1, ... 15, 19, 24, 28, 33, 40
Spray Equipment 32
Springs 43
Squeegees 20
Stampings 9, 64
Stapling Equipment 18
Steel 4
Steel, Stainless 56, 67
Strapping, Steel 28, 69

T

Tacker, Hand 8, 55
Tachometer 49
Tags 54
Tanks 64
Tape, Industrial 55, 56, 57
Telephone Booths, Acoustic .. 24
Testing Equipment ..... 1, 2, 7, ... 16, 20, 25, 27, 28, 36, 63
Thermocouples 52, 62
Timing Devices 7, 14, 43, 45
Tires, Industrial 33
Tools, Boring 16, 46, 61
Tools, Carbide 48, 50, 71
Tools, Cutting 13, 50
Tools, Hand 34
Tools, Milling 22, 28, 35, 58
Tools, Pneumatic 5, 42, 66
Tools, Portable Electric ..10, 14 ..... 43, 46, 71, 72
Tools, Soldering 3, 27
Traps, Steam 9, 13, 64, 70
Trolleys 7
Truck Bodies, Dumping ..16, 53
Trucks, Hand 6, 14, 17, 18, 29, 34, 40, 44, 48, 49, 51, 57, 65
Trucks, Industrial Power .10, 15, 19, 32, 47, 49, 59, 61, 63, 68, 71
Tube Fabricating Equipment 47
Tubing, Finned 54
Tubing & Fittings 36, 59
Tubing, Flexible Metal 37, 58, 63

V

Valve Reseater 39
Valves 35, 38, 41, 57, 59, 71
Ventilating Equipment 59
Vibration Absorbers ..47, 67, 70
Vises 2, 5, 9

W

Washers 40
Washroom Equipment 57
Water Coolers 33, 62
Water Treatment 1, 15
Waterproofing Materials ..17, 67
Weighing Equipment, Batch.. 16
Welders, Electric ..... 9, 13, ... 53, 59, 60
Welding Accessories .....27, 42, ... 48, 63
Welding & Cutting, Gas .... 10, ... 12, 15, 37, 65, 67
Welting 67
Wheels, Industrial 28, 70
Winches 8
Wire Cloth & Screens 28, 43
Wire, Electric 5, 64
Wire Rope & Accessories ..4, 61
Wiring Accessories 8, 24, 26, 30, 31, 32, 39, 42, 49, 61, 67
Wrenches 14

New Literature—Continued

Large Valves

W. S. Rockwell Co.—24-page illustrated publication "Rockwell Valves" presents information on blast gate slide valves; flanged, wafer, and threaded butterfly valves; and automatic and power operated control valves.

▲ Mention Item **NED-4007** when writing ▲

Industrial Safety

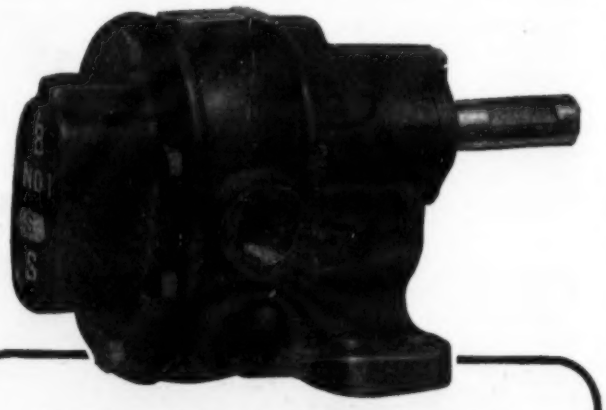
Allengheny Ludlum Steel Corp.—20-page pamphlet illustrated with cartoon type drawings suggests procedures to follow to avoid industrial accidents and fires, and discusses handling of injured persons before they reach medical care.

▲ Mention Item **NED-4008** when writing ▲

Alloy & Weldability Directory

Eutectic Welding Alloys Corp.—8-page illustrated bulletin No. EW-3 is condensation of engineering survey designed to show weldability of major and minor commercial alloys. Welds are classified broadly in groupings of alloys and metals in common use, together with lowest heat ranges permissible in welding for exact service requirements.

▲ Mention Item **NED-4009** when writing ▲



Rotary Helical-Geared Pumps for General Use

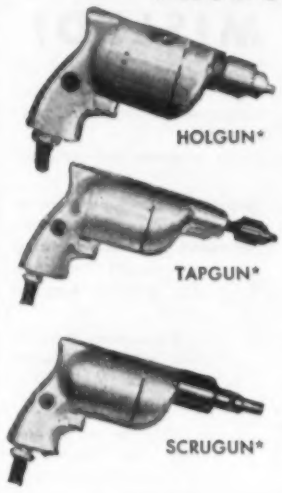
Brown & Sharpe 1S, 2S and 3S Rotary Geared Pumps with helical gears permit quiet operation at motor speeds. They are highly efficient for supplying coolant and lubricant, for circulating purposes and for low pressure hydraulic service. Pumps have renewable iron bearings – a mechanical seal to prevent leakage and eliminate gland adjustments – and come with or without integral relief valves. For complete information and installation dimensions, write Brown & Sharpe Mfg. Co., Providence 1, R. I.

We urge buying through the Distributor

BROWN & SHARPE PUMPS

▲ Mention Item **NED-4010** when writing ▲

3 OF A KIND to CUT PRODUCTION COSTS!



YES, these timesaving Van Dorn "Power Triplets" have a lot in common! They're all powered by Van Dorn-built motors, "tailor-made" for the specific tool they drive. They're all perfectly balanced, and matched in design with the famous "Pistol Grip and Trigger Switch." They're all packed with Van Dorn strength and stamina. They all turn out more uniform work at lower cost. See your nearby Van Dorn Distributor for details. Write for free catalog to: The Van Dorn Electric Tool Co., 762 Joppa Road, Towson 4, Md.

* Trade Mark Reg. U. S. Pat. Off.

For Power Specify "Van Dorn" (Div. of Black & Decker Mfg. Co.) Portable Electric TOOLS

▲ Mention Item **NED-4011** when writing ▲

SUPER EJECTOR TYPE TOOLS

Super is first with a complete line of standard Horizontal and Vertical Ejector Type Tools with carbide inserts in 20 types.

With Super's designs, you get greater depth of cut demonstrated in actual production—plus less down time, more grinds for your carbide dollar and greater diamond wheel economy. Super's hardened, long life holders designed to eliminate stresses and strains that cause carbide failure, can be adapted to inserts of special sizes and shapes.

★ Our new slide film, "Advantages and Economies of Ejector Type Tools," is now available for showing before tool groups. Write for information.

STANDARD AND SPECIAL SUPER Carbide Tools

SUPER TOOL COMPANY
21650 HOOVER RD., DETROIT 13, MICH. • 5210 SAN FERNANDO RD., GLENDALE 3, CAL.

▲ Mention Item **NED-4012** when writing ▲

Take your men out of a rut—

REDUCE ACCIDENTS
INCREASE EFFICIENCY
LOWER COSTS

Patch or Resurface with STONHARD RESURFACER

Your own maintenance man can quickly make your floors smooth and hard. STONHARD Resurfacer is tough, resilient, wear-resistant, and permanent. It is especially recommended for industrial floors subjected to heavy traffic.

Send for a FREE Copy of "Over Ruts & Holes" —it will help you solve your floor problem.

STONHARD COMPANY, 808 Term. Com. Bldg., Phila. 8, Pa.
Please send us a free folder and RESURFACER information.
Firm .....
Mr. ..... Title .....
Address .....
City ..... Zone ..... State .....

STONHARD COMPANY
Building Maintenance Materials • Since 1922
808 Terminal Commerce Bldg. Phila. 8, Pa.

▲ Mention Item **NED-4013** when writing ▲

Electro-Magnetic Separators VERSUS

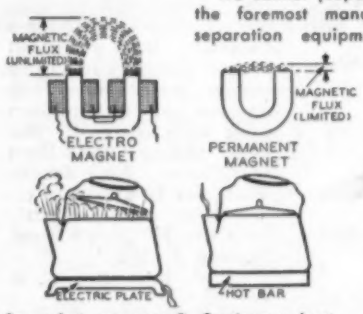
PERMANENT MAGNET SEPARATORS

DON'T BE MISLED!

Permanent Magnets have been improved—yes, but they will never be a substitute for a well designed electrically energized magnetic separator for removing dangerous tramp iron from ALL MATERIALS under ALL CONDITIONS.

We make separators with permanent magnets but only for limited applications.

We cannot jeopardize our reputation as the foremost manufacturers of magnetic separation equipment by recommending permanent magnets for general applications.



See what we mean? Continuous heat means more power! Likewise, continuous or electrically energized magnets mean greater magnetic flux or power, more efficient separation for you, all of the time. Important for you!

Permanent Magnets are not a PANACEA for ALL MAGNETIC separation problems.

Why be a "guinea pig" for innovations in magnetic engineering?

Consult Stearns Magnetic Engineers for tried and tested magnetic separation equipment.

STEARNS MAGNETIC MFG. CO.
653 SO. 28th ST. MILWAUKEE 4, WIS.
SEPARATORS—PULLEYS—DRUMS—CLUTCHES—BRAKES

▲ Mention Item NED-4014 when writing ▲

SAFE HANDS WORK FASTER

with Steel-Grip Gloves

The best opportunity for lower costs lies in speeding production. Keep materials moving with Steel-Grip Reinforced Gloves. They handle rough, heavy, jagged materials at breathless pace. Chrome tanned cowhide. Steel ribbon reinforced palm and fingers. Steel thread sewed. Protect against cuts, bruises. Or what's your need? Over 4300 *proved* Steel-Grip Safeguards may give immediate answer. Used by big industrials since 1910. Write for catalog or state your need *today*.

No. 644 chrome tanned cowhide gloves with palm and fingers reinforced by steel ribbons over leather strips. Sewed with steel thread. Thumb reinforced with patches and strap.

INDUSTRIAL GLOVES CO., 1520 Garfield Boulevard
Danville, Illinois

In Canada: Safety Supply Co., Toronto

OLD HICKORY STEEL GRIP

▲ Mention Item NED-4015 when writing ▲

3 HANDEES COVER the FIELD

TOOLS OF 1001 USES
Grind, Drill, Polish, Engrave, Cut, Clean, Saw, Carve, etc.

For work on metals, alloys, wood, plastics, stone, horn, bone, etc. Plugs in any AC or DC socket.

HANDEE 44—a good production tool. Has everything—speed, power, versatility and pencil-point precision. Constantly cooled by forced air, the 44 runs cool and smooth all day long. Weighs 2 pounds. 8½" long. 20,000 r.p.m. $31.50. In case with accessories $42.50.

HANDEE HI-POWER—A big fellow with ample power to drive a 2½" diam. wheel. Weighs 3 pounds. 10" long. 17,000 r.p.m. In case with accessories $42.50.

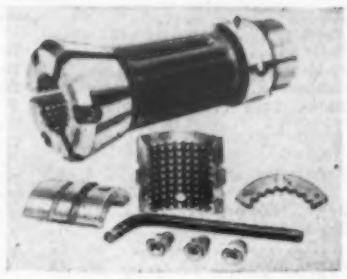
HANDEE—First tool of this type and today's finest. For precision work. Weighs 12 oz. 6½" long. 25,000 r.p.m. With 7 accessories $20.50. In case with 40 accessories $27.50.

Handee Tools are in stock in principal industrial areas. Write for catalog.

CHICAGO WHEEL & MFG. CO. Est. 1895
1101 W. Monroe St., Dept. NE, Chicago 7, Ill.

▲ Mention Item NED-4016 when writing ▲

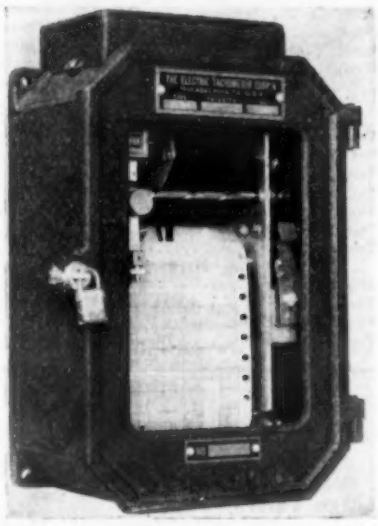
ADJUSTABLE COLLET



Pads of this style SM Master collet can be changed quickly without removing collet from spindle. Pads are held in place positively by means of standard socket set screws that lock in T-slots in face of collet. When collet is in open position, there is sufficient clearance to insert socket screw wrench. Because there is no wedging action to set up internal strains in collet head, breakage from this cause is eliminated. With one set of Master collets, any size or shape can be handled up to full machine capacity by inserting proper pads. Pads are interchangeable among all makes of machines of equal capacity. Made by **Sheffer Collet Co.,** Traverse City, Mich.

▲ Mention Item NED-4017 when writing ▲

PRODUCTION RECORDER



Gear driven model No. R-300-H electric speed and production recorder produces permanent record of performance when installed on any type of industrial machine. Synchronizing contactor can be attached to and driven by prime mover or machine. Step-by-step motor on recording instrument is electrically connected to contactor and follows its motion. This motor, by means of gears and feed screws, drives steel stylus across wax-coated chart. At ½-minute intervals, master clock which is integral part of system makes contact to disengage feed screw so that stylus arm is returned to zero. This cycle of operations produces series of parallel lines, lengths of which are proportional to speed or production.

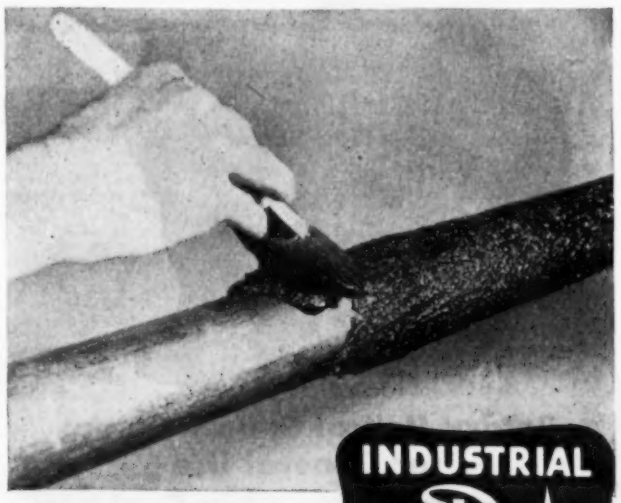
Device has accuracy of 0.5-per cent of full scale and is not affected by changes in voltage, vibration and temperature or parts wear. Unit can be installed at any remote position desired. Made by **Electric Tachometer Corp.,** Dept. NE, 22nd & Vine Sts., Philadelphia, Pa.

▲ Mention Item NED-4018 when writing ▲

DO YOU KNOW?

■ FLAWLESS super-finish imparted to dies by precision polishing service is claimed to impart added life to dies and to yield perfect-surfaced castings even after more than 100,000 impressions. Method employs optical lapping and polishing technique. For details of service, write to Acme Scientific Co., 1450 W. Randolph St., Chicago 7, Ill.

▲ Mention Item NED-4019 when writing ▲



INDUSTRIAL NoDrip

COVER PIPES TANKS, WALLS

Anyone can brush, trowel or spray NoDrip on any clean, dry surface. Goes on like plaster, forms a seamless, protective coating, *STOPS CONDENSATION DRIP.*

NoDrip keeps equipment and floors safe and dry; prevents corrosion of metal and prolongs its life. Acid, alkali and brine resistant. Comes in 1, 5 and 55 gal. drums, ready for use.

TRY NoDRIP—Apply NoDrip to a small area, compare the results with uncovered portions

Send for NoDrip Handbook

J. W. MORTELL CO.
526 BURCH ST. KANKAKEE, ILL.

▲ Mention Item NED-4020 when writing ▲

ALL WORK—and NO PLAY!

• Ideal for Spindles and High Speed Applications because internal clearances can be precisely controlled to meet exacting requirements.

* * *

Orange Cage Type Needle Bearings open new applications—overcome present limitations in the use of needle bearings. They embody many advanced features that result in less internal friction—smoother, quieter running—longer life hours expectancy. Available in many popular shaft sizes. WRITE for Engineering Data showing construction, advantages, sizes, capacities, etc. Consult our engineers on any application.

ORANGE ROLLER BEARING CO., Inc.
568 Main St., Orange, N. J.

▲ Mention Item NED-4021 when writing ▲

ADD-A-SECTION FLEX-E-UNIT STEEL BELT CONVEYOR

It's Custom Built

. . Priced At Production Line Costs

We've found the answer to reduce your costs. With Flex-E-Unit you have one power section and one take-up section—add as many 4 or 5 ft. intermediate sections as desired—for a completely integral steel conveyor up to 175 feet long. You save by eliminating "special engineering fees."

Write for FREE CATALOG, Today!

- Steel flights and other metals
- 12 to 36-in. widths.
- Tilts for assembly work (special)
- 30 F.P.M. other speeds special
- Adjustable legs (extra)

PROMPT DELIVERY

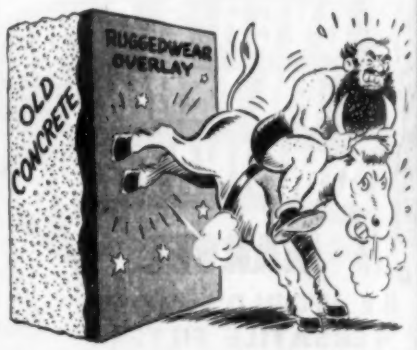
DISTRIBUTORS WANTED

Sermat CONVEYOR CORP.

2336 W. 58th St. • CHICAGO 36, ILL.

▲ Mention Item NED-4022 when writing ▲

TOUGH OVERLAYS AND PATCHES FOR Concrete or Wood Floors



Resurface or patch broken concrete floors with tough RUGGEDWEAR resurfacer. Here's a material which will stand up under the most punishing traffic conditions. Simple to install—no chopping or chipping required. Merely sweep out the spot to be repaired—mix the material—trowel it on. Holds solid and tight right up to irregular edge of old concrete. Provides a firmer, tougher, smoother, more rugged wearing surface. Used indoors or out. Dries fast.

MAIL COUPON for FREE TRIAL OFFER

FLEXROCK COMPANY
3603 Filbert St., Philadelphia 4, Pa.
Canadian Office: 21 King St., E. Toronto, Ont.

Please send me complete RUGGEDWEAR information and details of TRIAL ORDER PLAN—no obligation.

Name .....
Company .....
Address .....

▲ Mention Item NED-4023 when writing ▲